

textile

bulletin

MARCH 13, 1945

MAR 27 1945
Have you ever been bored by a technical address? Or, have you ever had a restless audience? See "Speaking at Technical Meetings," by Giles E. Hopkins — Page 19.

JACOBS

Casteel Dobby Cords are **STRONG!**

- Reduce smashes from dobbie cord failures
- Save time with less loom fixing
- Produce more from each loom

Here's Why—

Steel terminals, die-cast directly onto the wire core and into metal collar, assure secure attachment.

Heavy duty wearing surface of multiple-ply, extra staple, braided, lubricated, and oil resistant yarn.



Cast steel wire core — same as used in aircraft control cables — assures longer wear and minimum stretch.

Leather ends easily attached for adjustment if desired.

JACOBS CASTEEL DOBBY CORDS WILL OUTWEAR AND OUTPERFORM

E. H. JACOBS MFG. CO.

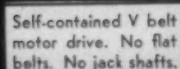
ESTABLISHED 1869

DANIELSON, CONN.

CHARLOTTE, N. C.

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AUG 4 1945
2678





Forward-Reverse Joq.

Rapid speed selector.
Ideal for student work.

8 Geared Speeds in Oil. Quiet operating steel gears. Anti-friction bearings.

Feed compound and head reverse, sliding gears within head. No overhanging tumbler.

Tapered gibs, Compound and Cross slide.

Lead screw — thread-
ing only — no spline.

Safety clutch —
Not a shear pin.

One-shot oiling. Front and rear to carriage ways and underside of cross slide.

Rectangular box casting apron. Steel gear anti-friction rack. Pinion bearings.

Full range feed box.
Steel gearing.
Central oiling.

Single positive clutch control for either cross or longitudinal feed — no frictions.

Motor on hinged plate for belt tension. Low center of gravity.

Storage space
in cabinet leg.

Pan and cabinet
leg optional.

See them—Most any
Defense Plant—Many
Vocational Schools, or
wherever efficiency in
turning is required.

THE HENRY WALKE CO.

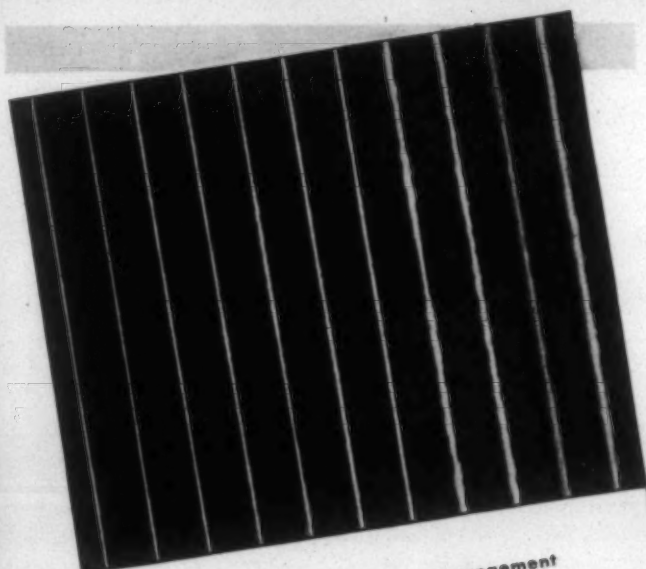
407-415 UNION ST.
TELEPHONE 51641

408-410 WATER ST.
NORFOLK 1, VA.

"Serving Industry Since 1884"

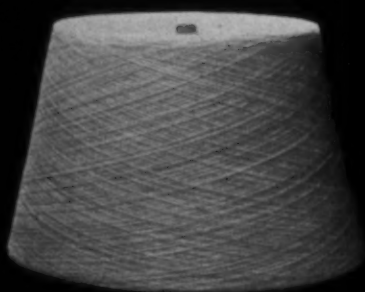


THE SAME
High Winding Speed
THE SAME
Free Yarn Delivery



One Standard Traversing Arrangement

All Roto-Coners* equipped for paper coning have a standard Rotary Traverse. Its groove arrangement gives the same minimum number of winds for all yarn counts, fine to coarse. Because there are no cams, there is no reason for slowing down production or changing angle of wind for coarser yarns.



Only one winding machine on the market winds all yarn sizes at the same high winding speed. That machine is the Roto-Coner*.

Only one knitting cone on the yarn market has the same steep-angled lay of yarn for all sizes which is ideal for free delivery on knitting machines. That cone is the Roto-Cone—the product of the Roto-Coner*.

The Roto-Coner* may also be equipped to wind warping cones, dyeing packages and parallel tubes for twisting.

*Reg. U. S. Pat. Off.

Universal Winding Company

PROVIDENCE

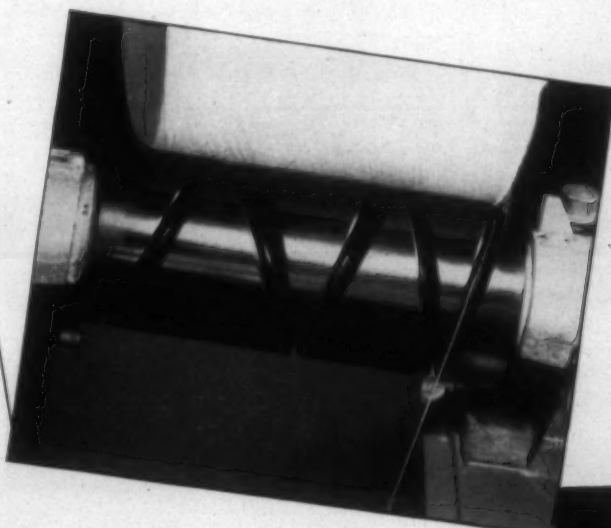
BOSTON

UTICA

PHILADELPHIA

CHARLOTTE

ATLANTA



Uniform Shape and Quality

The Rotary Traverse—a one-piece driving drum and traverse guide—eliminates the need for frequent adjustments and also the element of wear on fast-moving reciprocating parts. Thus the usual causes of variation in cones are avoided. Yarn cleaners are set uniformly from spindle to spindle and locked against tampering and vibration.

ROTO-CONER

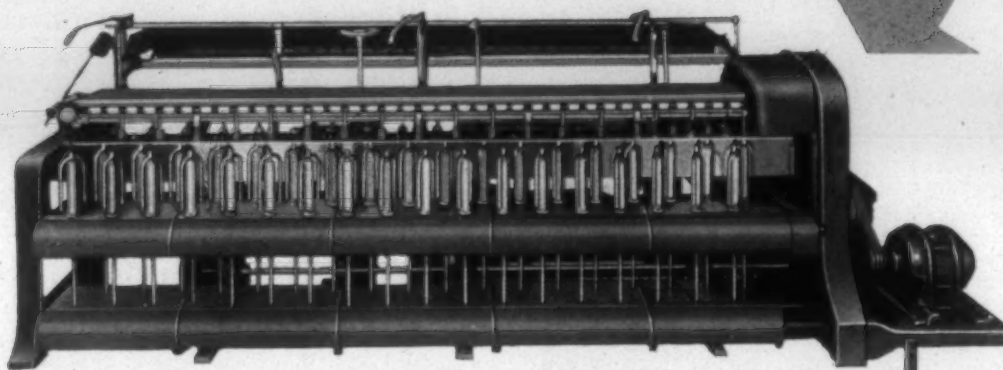


Open-Wind Cones for Knitting

WARPIING CONES • DYEING PACKAGES • PARALLEL TUBES FOR TWISTING

Published Semi-Monthly by Clark Publishing Company, 218 W. Morehead St., Charlotte, N. C. Subscription \$1.50 per year in advance. Entered as second-class mail matter March 2, 1911, at Postoffice, Charlotte, N. C., under Act of Congress, March 2, 1897.

H & B HIGH-DRAFT ROVING FRAME



Put it on your PREFERRED LIST for After the War!

ONE OF THESE MACHINES will replace two or three conventional speed frames. It is sturdy and of modern design. Mechanical features include the following:

Exceptionally strong differential gearing... draft changes quickly made... simplified builder, easily adjustable... articulated quiet chain bobbin shaft drive... superior finish, including polished non-rusting metallic clearer covers... single or double sliver lifting rolls... angle iron creels.

The frame was specially designed to accommodate our High-Draft Roving System, 4 or 5 roll, with Patented Scroll Condenser. This system will produce 3.00 to 6.00 hank roving from 50 to 60 grain sliver in **ONE OPERATION**. It is drafting cotton up to 30 on speeders and up to 16 on intermediates. With mixtures, such as rayon and cotton or rayon and wool,

some installations are drafting as high as 48 in one operation.

Our Bakelite Patented Scroll Condenser has greatly simplified high drafting of sliver. It eliminates static and prevents the flaring and spreading of the fibres by condensing them into a compact sliver without disturbing parallelization, and gives just enough false twist to allow better control in the drafting zone.

The H & B High-Draft Roving Frame not only greatly reduces the investment required in the card room, but also frequently increases production as compared with the equipment it replaces and invariably reduces manufacturing cost. This reduction has been as much as 6/10 of one cent. per lb. of yarn.

Put this frame on your preferred list for after the war and let us know about your plans **NOW**, so you won't have to wait too long for delivery after we are permitted to accept orders for textile machinery.

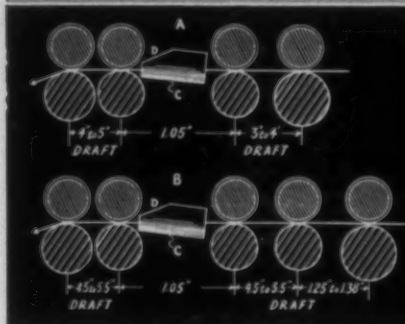


H & B AMERICAN MACHINE CO.
PLANT AT PAWTUCKET, RHODE ISLAND

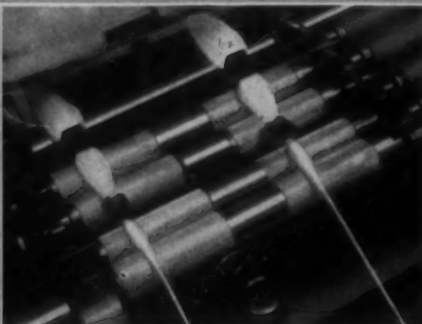
Boston Office, 161 Devonshire Street; Charlotte Office, 1201-3 Johnston Bldg.; Atlanta Office, 815 Citizens & Southern National Bank Bldg.; Export Dept., United States Machinery Co., 115 Broad Street, New York, U. S. A.



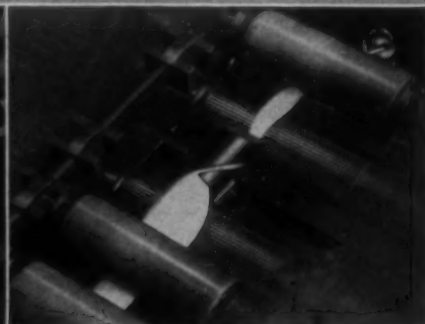
Diagrams showing drafts obtainable with 4 Roll and 5 Roll High-Draft Roving Systems



4 Roll High-Draft Roving System with Patented Scroll Condenser



5 Roll High-Draft Roving System with Patented Scroll Condenser





**PHENOMENAL
FIGURES
OF SUCCESS
WITH DAYCO
ROLL COVERINGS**

A large mill needed 8 men, highly skilled, to service and apply their old-style roll coverings. Daycos were installed and since then only 2 men accomplish all it took 8 men to do previously . . . releasing 6 for other essential work! Daycos alone brought about this manpower savings of 75%.

Greater uniformity of yarn and increased production both now result from the use of Dayco Roll Coverings.

Drafting is much better. Daycos' ideal cushion means far less ends down. Their surface retains exactly the right coefficient of friction . . . unaffected by the humidity changes or extremes . . . throughout an exceedingly long life.

Yet that surface is so tough it never grooves, never hollows-out, flattens or distorts. It has no cold flow. And, since Daycos' excellent cushion is static-free, lapping-up is practically unknown. So from precise cost-accounting records, the cost per hour of operation with Dayco Roll Coverings is unqualifiedly less!

Check all 12 advantages you get from Dayco Roll Coverings. See for yourself how Dayton's Technical Excellence and its years of specialized textile experience will help you, too. Get the facts. Write or wire today.

THE DAYTON RUBBER MFG. CO.
Famous Dayco Synthetic Rubber Products Since 1934
DAYTON 1, OHIO WAYNESVILLE, N. C.
Main Sales Office: Woodside Bldg., Greenville, S. C.

KEEP ON BUYING WAR BONDS

**TOUGHER SURFACE,
CAN'T BE GROOVED-
ASSURES LOWER
COST PER HOUR!**



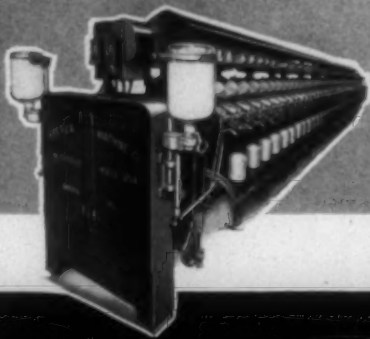
**MAKE THESE
12 ADVANTAGES
YOURS**

Improved drafting . . . No grooving,
less ends down . . . Unaffected by
temperature changes . . . Lower net
roll costs . . . Long service life . . .
Easy to apply . . . Proper cushion-
ing . . . Not affected by hard ends
... Static free . . . Oil resisting . . .
One-piece tubular construction . . .
Produces more uniform yarn.

Roll Coverings by

**Dayton
Rubber**

The Mark Of Technical Excellence In Synthetic Rubber



FOSTER MODEL 102 FOR WINDING WORSTED YARN



FIG. 1

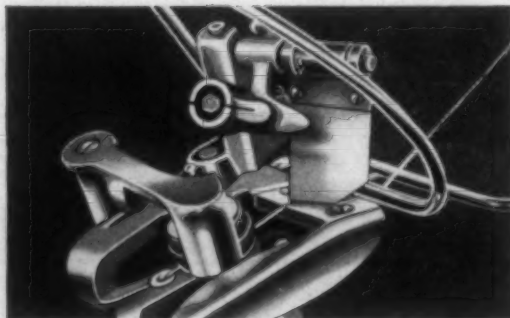


FIG. 2

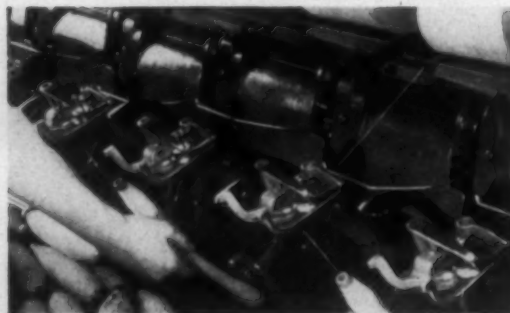
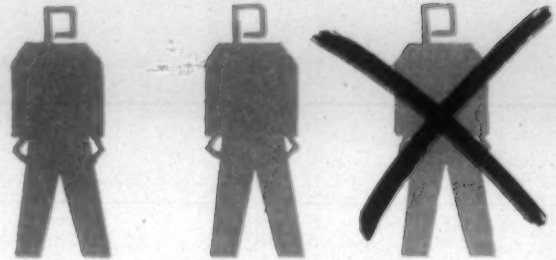


FIG. 3



FIG. 4



5 WAYS IN WHICH IT REDUCES BY 1/3 MANPOWER REQUIRED

1 7" TRAVERSE CONE (if desired). It contains 10% more yarn than a 6" traverse cone of the same diameter and therefore reduces doffing and handling in subsequent operations.

2 TENSION & SLUB CATCHING ATTACHMENTS (several different types) are self-threading and self-cleaning. Minimum tension, when desired, reduces breakage of soft twist yarns. Tension increased by adding weights to tension disc.

3 EASY DOFFING. Empty bobbin conveyor is **BELOW** the bobbin pins; operator merely **DROPS** the bobbins; no lifting up, around or over.

4 NO REHANDLING OF EMPTY BOBBINS. Belt conveyer runs **UP** at end of machine, discharging **DIRECTLY** into standard sized truck. No small boxes to rehandle. New machines may be equipped with double conveyers so that when different bobbins are used on each side, they will not be mixed.

5 HIGH WINDING SPEED. While the practicable speed for different kinds of worsted yarns varies between 300 and 650 y.p.m., it is uniformly higher with this machine than with older models. Combined with other features, it makes possible twice the production at 2/3 the cost.

And don't forget, Foster Model 102 **FLEXIBILITY**. This machine's 7 flexibility features will be explained on request.

FOSTER MACHINE CO.

WESTFIELD, MASSACHUSETTS

SOUTHERN OFFICE, JOHNSTON BLDG., CHARLOTTE, N. C. CANADIAN REPRESENTATIVE: ROSS-WHITEHEAD & CO., LTD., UNIVERSITY TOWER BLDG., 660 ST. CATHERINE ST., WEST, MONTREAL, QUEBEC

40% More Cloth

High Speed Looms will weave all the way from 20 to 40% More Cloth per Weaver than Your Present Looms could in their Best Days

Overtime Operation and Wartime Pressure

Has taken Heavy Toll of Your Present Looms and Left them in Poor Condition to Meet the Great Demand for Textiles when Peace Comes

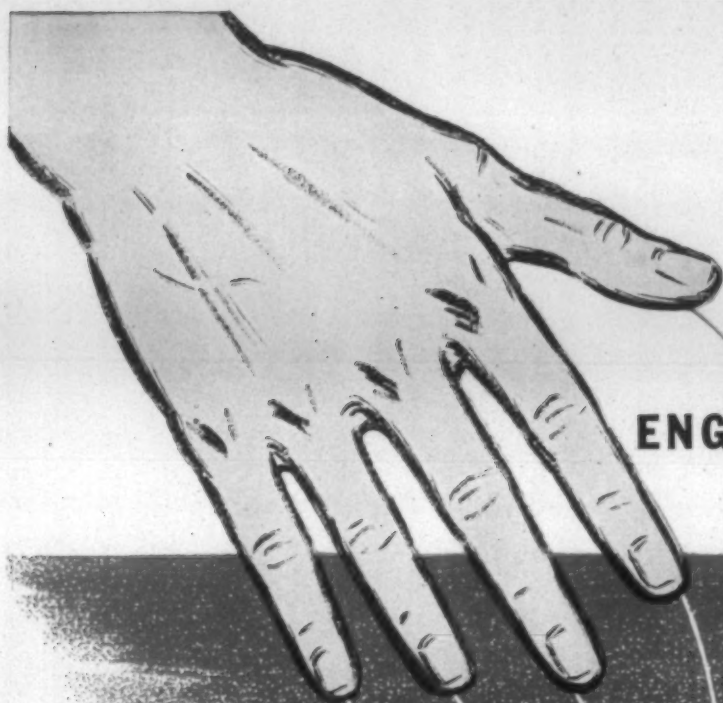
Are You Keeping Intact

That Reserve You Started for the Purchase of New Looms when the Signal to Go Ahead Comes?

You're Going to Need It

Draper Corporation

Atlanta Hopedale Spartanburg



AT YOUR

ENGINEERED ANSWERS TO

For maximum production... top efficiency... lowest operating cost, give your machines the finest in lubricants—Tycol oils and greases. Tycol lubricants are made to meet every lubrication need of industry — from roll neck greases for steel mills to spindle oils for textile plants. Each Tycol lubricant is scientifically engineered to meet specific service conditions. At every step from selection of crudes to blending of the finished product, Tycol lubricants are processed to provide maximum lubricating efficiency which means greater economy, longer machine life for every type of equipment.

Tide Water engineers are thoroughly experienced in all phases of industrial lubrication. They will be glad to assist you in selecting the Tycol lubricant best suited to your specific need. Call or write your nearest Tide Water Associated office for further details.

TIDE WATER ASSOCIATED OIL COMPANY

MAKERS OF THE FAMOUS VEEDOL MOTOR OIL • Eastern Division: 17 Battery Place, New York 4, N. Y.
Principal Branch Offices: Boston, Philadelphia, Pittsburgh, Charlotte, N. C.



Have You Received Your Copy of "Lubricania"?

This informative handbook, "Tide Water Associated Lubricania", gives clear, concise descriptions of the basic tests used to determine important lubricant properties — Viscosity, Pour Points, Neutralization Number and many others. For your free copy write to Tide Water Associated Oil Company, 17 Battery Place, New York 4, N. Y.

DRUMS! DRUMS! DRUMS!

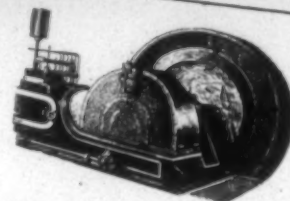
War needs make it extremely important that all empty drums be returned immediately

TYCOL

SCIENTIFICALLY

...Fingertips

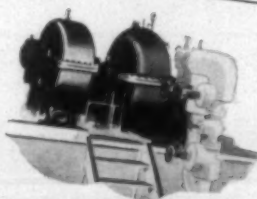
EVERY LUBRICATION NEED



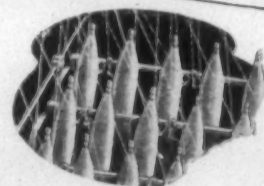
"We saved 33¼% in oil costs when we changed to Tide Water E. A. Cylinder Oil." That report from a plant engineer typifies the kind of economical, trouble-free lubrication provided by Tide Water Steam Cylinder Oil in hundreds of plants. It gives better protection, promotes efficient operation and lowers lubrication costs.



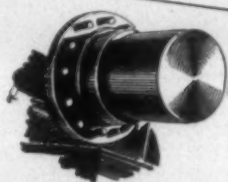
"No more trouble with sticking valves . . . costly delays and overhauls eliminated . . . engines giving better service . . ." — that's how one plant engineer describes the improved results gained with Tide Water Diesel Oil. It assures maximum economy — top performance — from every gallon of lubricant.



"70,000 Hours continuous operation . . . neutralization only .09." That's typical of the unusual performance achieved with Tycol Turbine Oil. Thanks to Tide Water's Edeleanu process, this oil has greater stability and resistance to emulsification . . . assuring more economy, steadier operation, smoother performance.



"300,000 Spindles operating for 13 years without a single lost tube" — that's a textile mill operator's way of pointing out the superior performance of Tycol Spindle Oils. For every textile application — from power plant to finishing — there's a Tycol Lubricant scientifically engineered for the job.



"Never a single bearing overheated since we changed to Tide Water Green Cast Grease," says one chief engineer. No matter how severe the service, Tide Water Green Cast Greases assure better lubrication . . . less maintenance. The reason? They contain more high-grade cylinder oil — less soap — which means better performance in every application.



INDUSTRIAL LUBRICANTS

ENGINEERED FOR EVERY INDUSTRIAL USE

"CAREFULLY
INSPECTED"



... that's *Tufferized* Card Clothing



Careful as it might be, no "before-school" inspection by mother could ever match the thorough work of Tuffer inspectors. Every day Tuffer inspectors make certain that 50 million points of card clothing wire are uniform and ready to give you efficient, unvarying carding!

From foundation to the final inspection, master craftsmen are responsible for the making of Tuffer Card Clothing!

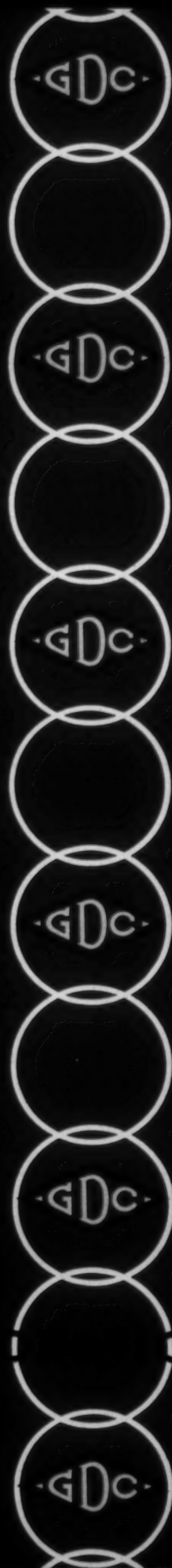
Card Clothing for Woolen, Worsted, Cotton, Asbestos, and Silk Cards—Napper Clothing, Brush Clothing, Strickles, Emery Fillets Top Flats Recovered and extra sets loaned at all plants—Lickerins and Garnett Cylinders from 4 to 30 inches and Metallic Card Breasts Rewired at Southern Plant—Midgley Patented Hand Stripping Cards, Howard's Special Hand Stripping Cards and Inserted-Eye and Regular Wire Heddles.

HOWARD BROS. MFG. CO.

WORCESTER, MASSACHUSETTS

Southern Plants: Atlanta, Ga., Gastonia, N. C. Branch Offices: Philadelphia, Austin Canadian Agents: Colwool Accessories, Ltd., Toronto 2

From bale to bolt General's
"Quality" Dyestuffs and
Auxiliaries are important
links in the long chain of tex-
tile processing that assure
Better Fabrics at Lower Costs.



These 6 Innovations . . .

by SMITH-DRUM In Package Dyeing Are Now Considered "Essentials"

In 1937, a new package dyeing machine of radically-advanced design was offered the textile industry by Smith-Drum. It embodied 6 major features never before available in any package dyeing machine. Acceptance of this machine and its 6 major advantages was almost instantaneous! Since then, these features have come to be regarded by most as absolutely essential for satisfactory package dyeing.



. . . And New Developments Coming

A number of important new features, to be incorporated in the post-war Smith-Drum Package Dyeing Machines, are already under development. You may be sure that, in placing your orders *now* for post-war delivery, you will receive full advantage of these new developments. Furthermore, you may be sure that you will receive the most advanced machine of its type no matter *what* Smith-Drum Machine you order. To avoid a long wait for delivery after war restrictions are lifted, we urge you to place your orders *right now!* Write . . . Smith, Drum & Company, Allegheny Avenue at 5th Street, Philadelphia 33, Pa.

SMITH-DRUM

Textile Machines

for hosiery dyeing, skein dyeing, package dyeing, beam dyeing, piece goods dyeing, package drying, skein mercerizing, warp mercerizing, hosiery inspection.

Get a Lubricant That

WON'T SQUEEZE OUT

of Mandrel
Bearings!



ON textile printing machines, one of the toughest spots to lubricate is the Mandrel bearing pictured above.

Here terrific pressures that run as high as 800 pounds per square inch, seek to squeeze out the lubricant. High temperatures, usually encountered, add to the difficulty.

In many mills, Gargoyle Block Greases are solving this Mandrel bearing problem. For these stable Socony-Vacuum products are specifically designed for tough spots like this. They resist the squeezing action of high unit pressures, and they won't melt down and run off at high temperatures.

See your Socony-Vacuum lubrication specialist for proper application of the right Gargoyle Block Grease for your Mandrel bearings.

SOCONY-VACUUM OIL CO., INC. • Standard Oil of N. Y. Div. • White Star Div. • Lubrite Div. • Chicago Div. • White Eagle Div. • Wadhams Div. • Magnolia Petroleum Co. • General Petroleum Corporation of Calif.

CALL IN SOCONY-VACUUM FOR "CORRECT LUBRICATION"

TUNE IN "INFORMATION PLEASE"—MONDAY EVENINGS, 9:30 E.W.T.—NBC



SOCONY-VACUUM'S 5 Steps to Lower Production Costs:

1. Lubrication
Study
of Your
Entire Plant

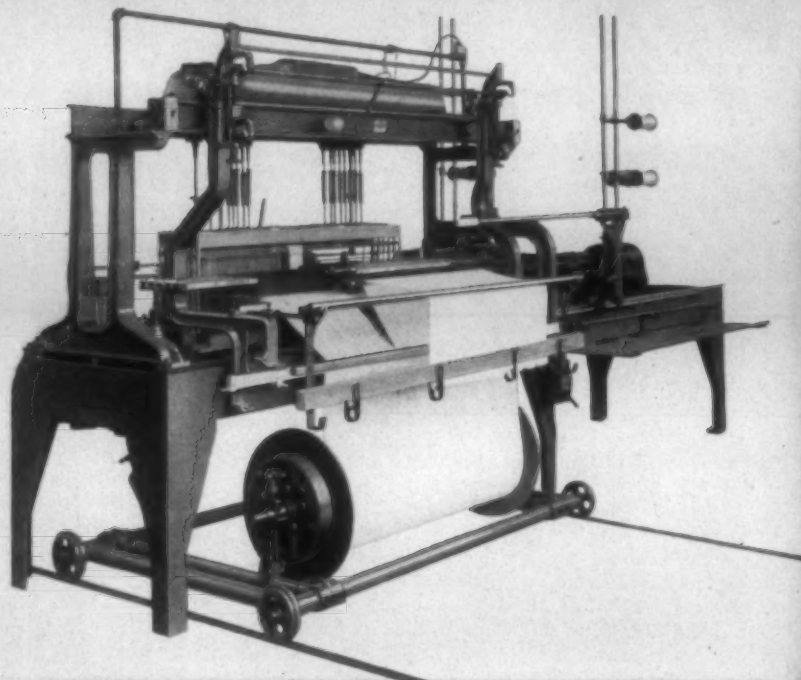
2. Lubrication
Schedules
and
Controls

3. Lubricant
Storage and
Handling
System

4. Skilled
Engineering
Counsel

5. Progress
Reports of
Benefits
Secured

NEW BARBER-COLMAN DRAWING-IN MACHINE



NEW FLAT STEEL HEDDLES LEAD THE WAY TO BETTER DRAWING-IN AT LOWER COST

Shown here are two of several types of flat steel heddles developed for the new Barber-Colman Drawing-In Machine. Open ends permit free movement the full length of support bars in the frames and the characteristic key-hole provides for proper alternate selection of successive heddles. We suggest you *start now* to replace your heddle frames progressively with this new type, so as to be in a position to take advantage

of drawing-in economies provided by the new Barber-Colman Drawing-In Machine. Thus, by the time you are in position to obtain the machine you will have built up a supply of the necessary heddles which you will find, in the meantime, to be perfectly satisfactory for hand drawing-in. Steel heddle manufacturers are now ready to answer your inquiries concerning this equipment.

AUTOMATIC SPOOLERS • SUPER-SPEED WARPERS • WARP TYING MACHINES • DRAWING-IN MACHINES

BARBER-COLMAN COMPANY
ROCKFORD • ILLINOIS • U. S. A.

FRAMINGHAM, MASS., U. S. A.

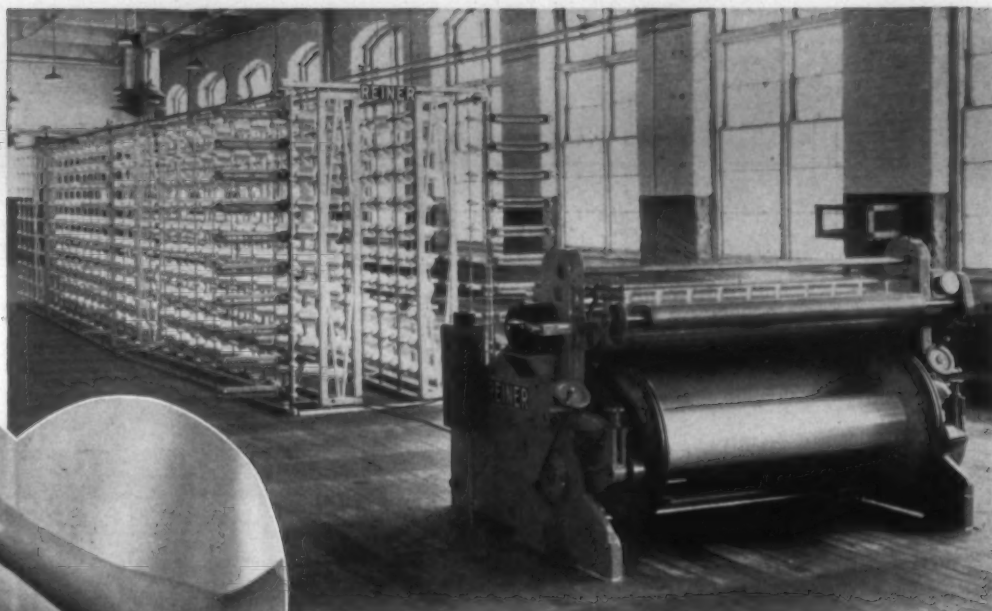
GREENVILLE, S. C., U. S. A.

MANCHESTER, ENGLAND

The Super-Efficient **REINER WARPER AND CREEL—**

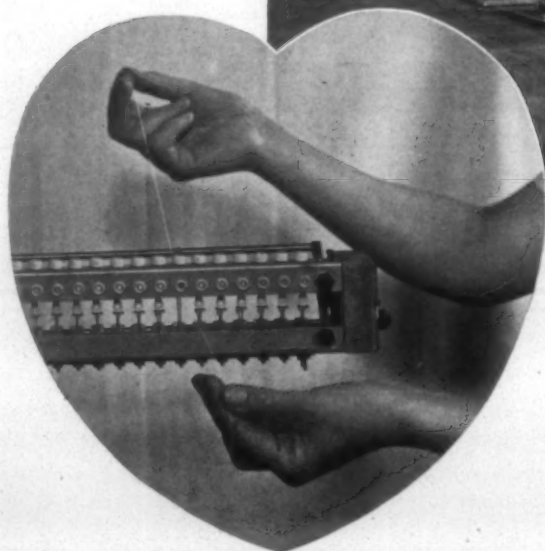
Now

Available!



Installations like that shown above, used for Nylon tire cord have contributed greatly to war production speed.

Designed for speed, this REINER WARPER and CREEL have these features for efficiency and speed.



HEART OF THE WARPING OPERATION

This Mercury Thread Stop Motion is not subject to corrosion or affected by lint—important for safe high speed warping. In a class by itself as a stop motion—dependable, efficient and more effective.

This motion can be applied to any standard creel.

THE REINER LINE OF TEXTILE EQUIPMENT

For forty years it has represented the highest standards of quality and performance. Included in the line are the following:—

Full Fashioned Hosiery Machines
Auto Heelers
Tricot Machines
High Speed Warping Machines (Full Width and Sectional)
Magazine Creels
Jack Creels
Thread Tensions (Counterbalanced and Disc.)
Kay Loom Machines
Raschel Machines
Automatic Embroidery Machines
Automatic Bobbin Winding Machines for Embroidery and Quilting Machines

BEAMER FEATURES

- (1) Constant thread speed.
- (2) Easy Doffing.
- (3) Direct Beam Drive, instead of friction drive.
- (4) Slow Starting Speed, independent of warping speed.
- (5) Controlled hardness or softness of the warp beam.

CREEL FEATURES

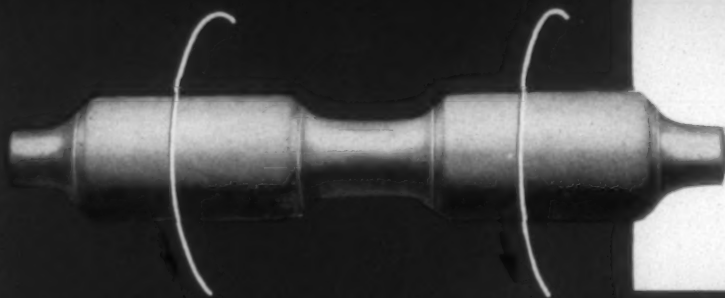
- (1) Overhead Magazine Delivery.
- (2) All Steel Construction.
- (3) Suitable for Rayon or Cotton Cones.
- (4) Movable Tension Gate for Balloon Control, for different size packages.



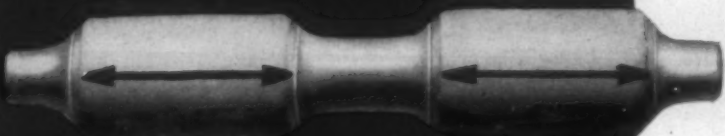
Ten Minutes from New York City, 41st St. between 7th and 8th Avenues by Public Service Bus—No. 67, via Lincoln Tunnel.
Four Trunk Phone Lines: Union 7-0502—7-0503—7-0504—7-0505.

THIS COT HAS ONE FEATURE

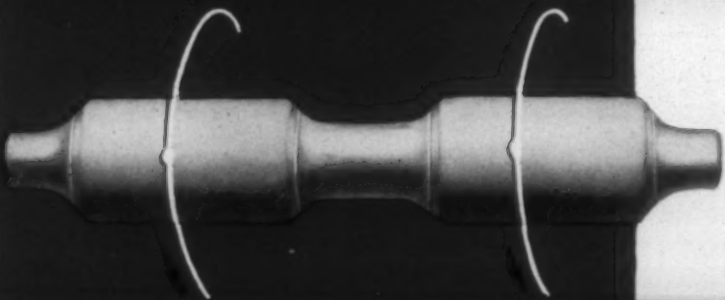
PROTECTING AGAINST ALL 3 CAUSES
OF ROLL COVERING TROUBLE



TRIPLE-RESILIENCY — Spinna Calf's unique construction . . . springy, interlocking fibres with plenty of "give and take" in all directions . . . gives it unusual resistance to breakdown due to the constant pressure and friction of the yarn.



TRIPLE-RESILIENCY — The traversing of the yarn tends to push the roll covering toward each end of the roll, but triple-resilient Spinna springs back into shape immediately after the yarn has pushed it toward either edge.



TRIPLE-RESILIENCY — Ordinary hard ends do not harm a Spinna cot, because the resilient leather recovers quickly after allowing the hard end to pass through. No other roll covering material can withstand hard ends so successfully.

Lively **SPINNA CALF** *It's Triple Resilient*
ROLL COVERING

BETTER SPINNING RESULTS, TOO

Spinna Calf has a natural high-friction surface that provides just enough "stick" to hold the yarn securely through the rolls and then to carry waste well back on the clearer, avoiding eyebrows. Static troubles are reduced, too, because Spinna has a hygroscopic ingredient that helps to absorb moisture, thus improving ability to conduct static away from the yarn.

Try Spinna on your spinning frames. You'll see a high quality of spinning and, if you keep records of roll covering life, you'll find that Spinna will retain its high spinning quality longer, without replacement or attention.

Spinna Calf..

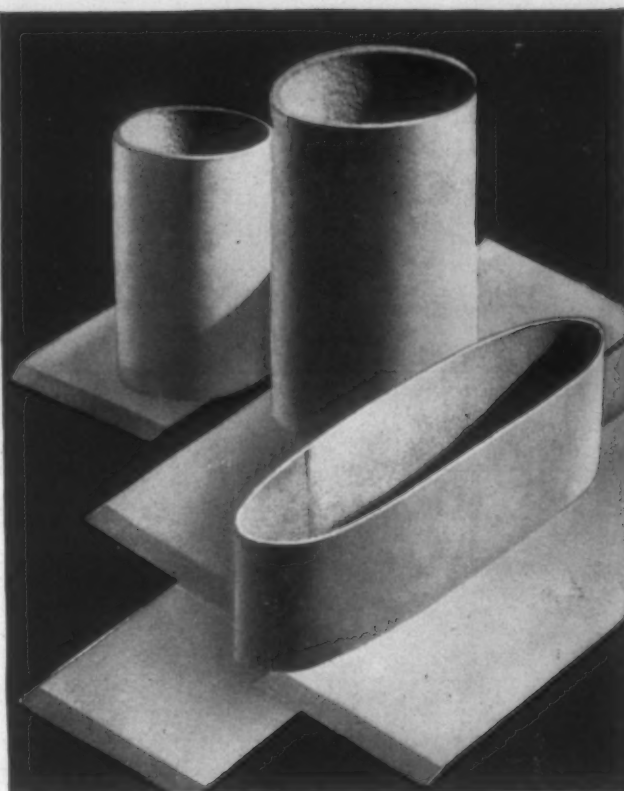
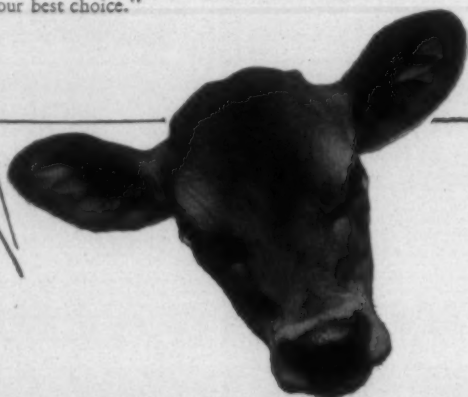
AIR CUSHIONS IN A NETWORK OF TOUGH, SPRINGY FIBRES

abrasion-resistant top surface next to the yarn

interlocking fibres with air spaces in-between

cushion of flesh underneath

"If you want roll covering that is adjustable to all counts . . . can take ordinary hard ends without leaving grooves . . . and stays kind to the yarn for up to 18 months and more in front line positions . . . then Spinna Calf — the most generally-used calfskin — is your best choice."



THE APRON MATERIAL THAT STAYS YOUNG

There's a saying in the garment trade that goes: "It's always leather weather."

It's always leather weather in a spinning mill, too, because Lawrence Calfskin has proved its ability to do better drafting over a longer period of time under a wide variety of conditions.

The treatment Lawrence gives its chrome-tanned and bark-tanned calfskins provides a superior drafting surface that has never been equalled by other materials . . . and that retains its quality much longer.

Calf Leather is *naturally* a long-lasting material, unaffected by air and spinning-room moisture and highly resistant to breakdown due to constant flexing, tension or pressure.

That's why, among various apron types, Lawrence Calfskins are selected more often than any other.

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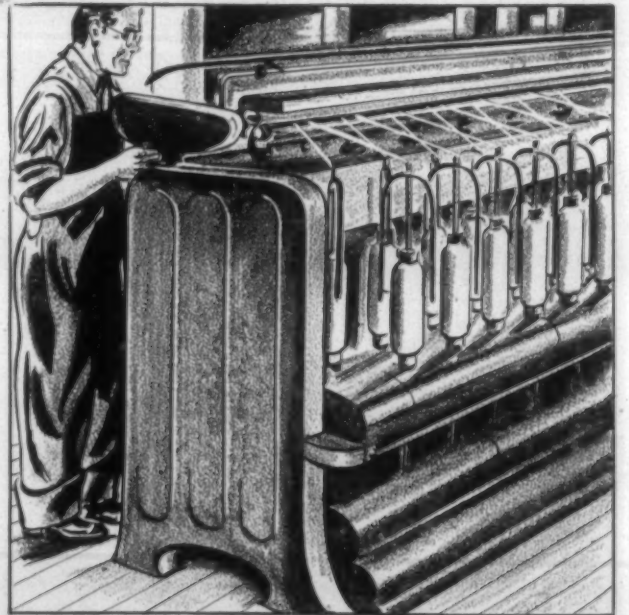
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Speaking at Technical Meetings

By GILES E. HOPKINS, Director of Applied Research
Textile Research Institute, Inc.

IT IS assumed that any speaker has been selected because he has certain information or ideas to get across to the audience present. The sponsor assembles the audience, provides necessary auxiliary devices, gives the speaker what is supposed to be sufficient notice for preparation, and allots a specified time. It is hoped that the time allotted is in keeping with the relative importance of the subject to the audience, is no longer than that during which the audience may be expected to render more or less concentrated attention and sufficient to allow the desired concept to be absorbed.

We will avoid the use of speakers to "fill in time." With this possibility eliminated, the problem of the presentation of a talk is confined to the means which will best transmit an idea or a concept from the mind of the speaker to the consciousness of the audience, or at least that part of the audience who are sufficiently interested to listen.

People attend technical meetings for two reasons: to absorb valued ideas and inspiration from the papers, and to renew and enlarge their personal contacts. Both reasons are worthy. Most meetings allow opportunity for personal contacts in the form of luncheons, receptions, and incidental time between paper sessions. We are all aware, however, that many people circulate in the lobbies during the paper sessions. This lobby circulation is in direct competition with attention to the speaker, and the speaker will receive and retain his rightful proportion of interest only if he presents the subject in an attractive package.

Showmanship, But Reserved

The technique involved definitely includes showmanship. Because it is hoped that we will confine ourselves to scientific subjects, this means, of course, only that showmanship which is compatible with a scientific and technical presentation. The problems involved are somewhat different from those concerned with the presentation of a written paper. A delivered talk can be, and usually will be, supplemented by distribution of the written paper; hence the talk does not necessarily cover the entire subject matter. In preparing a written report the author is never quite sure how many pages will be read. It is, therefore, important in a written paper that the most important conclusions be presented first, with the more detailed points carried in later parts of the report until finally, the appendix will include the items with least pertinence to the idea which is to be "sold."

When we address an audience, we have some confidence that the greater part of the audience will be with us to the end. Of course, a few callous ones may walk out, but in general, common decency will assure their attendance during the allotted time. Therefore, in the delivery of a talk we may be allowed the privilege of saving our most important conclusions until the end, presenting them as a climax to the whole.

What Type Audience

Each talk should be carefully adjusted to the level of interest represented in the audience. It is practically impossible to deliver exactly the same talk to several different groups unless those groups are only geographically divided and there is assurance that the same technical interests and the same intellectual level of appreciation is common to them. Even geographical differences may indicate the necessity of a certain amount of "slanting" or change of emphasis. One audience will require more detail to absorb certain phases of a talk and can be relied upon to appreciate other points through the sketchiest reference, while another audience will require quite the reverse emphasis.

The speaker should appraise the interest level of his audience immediately upon receiving the invitation to speak and base his general approach upon this appraisal. A reappraisal should be made during the first few minutes of the introductory remarks, possibly aided by appraisal of audience reaction to previous speakers. At this time his talk is pretty well set, but he is still allowed some latitude through variations in speed of delivery, omission of some paragraphs or sections of his prepared talk and explanatory interjections in other sections.

In tailoring a subject to the allotted time, *the time limit should definitely be taken seriously*. If the speaker is to be followed by other speakers it is not fair to cut into their time. If he is the last speaker, it is not fair to the audience. In cutting material to the time limit we can use two methods. We can condense or we can select. Both are useful but there is a limit which cannot be exceeded on condensation. In a written presentation it is possible to condense way beyond the point that is practical in a verbal address. The condensation can even go to a point where the reader must study each word and its relation to the other words to get its sense. Condensation carried to this point in oral delivery means

that the speaker will pass over the material too rapidly for the audience to grasp it. Moderate dilution is necessary to let the listener's mental process catch up.

On the other hand, there is much more opportunity for selection in a delivered talk than in a written paper. If the delivered talk is supplemented by a written discussion the eliminated material may be provided for the audience in written form, for study at leisure.

It is assumed that the audience is much more interested in *what* was found out than *how* it was found out. If they do not have sufficient confidence to assume that the methods are satisfactory they can check them later. Usually some of the audience will have complete confidence in the choice of methods. All of the audience will want to know the results. Unfortunately, in carrying on a piece of research we may spend months or years doing the work and only a few days on considering the results. The investigator, therefore, is much more impressed with his procedures and the difficulty associated with them, and frequently has an inclination to spend an unreasonable portion of his time on this phase of the work at the expense of presenting his conclusions clearly enough, slowly enough, and dramatically enough to "get them across."

In order to assure that the talk can be delivered within a certain assigned time, make an accurate estimate of the speed of delivery and then allow a little additional time for the asides which will probably be introduced. Speed of delivery is important not only in estimating the time to be consumed but also in retaining the attention of the audience. If it is too fast for them to absorb the ideas the attention will wane. If the delivery is so slow that the rapid mind must hang in space waiting for the next word, extraneous thoughts will creep in and attention is diverted. It is sounder to pause between phrases, each of which contains an idea or a section of an idea, than to pause between each word.

If the subject is sufficiently familiar to the speaker or if his memory is exceptional, he may deliver from memory, but this introduces hazards in regard to the time limit. There is danger of ending up with wrong emphasis. Too much time may be wasted on the first points and too little on later ones. If the matter is controversial or quotations are liable to be made, there are definite advantages in reading from a paper.

Reading can be assisted if the work is typed in triple space, and the system, used on radio programs, of marking

to indicate emphasis, pauses and so forth is used. The important words may be underlined and additional commas added to show pauses in delivery, and so forth. These aids make it possible to read a paper with expression and dramatization, give suitable time to look at the audience and release the reader from too close absorption in his script. The method is illustrated in the first part of this paragraph.

If the speaker reads through his talk, preferably aloud, five or ten times the wording will be sufficiently well fixed in his mind to make necessary only slight reference to the text itself. If this repeated reading is done from the marked text, a glance at a paragraph will remind him of whole sections and he can deliver without close reading. If the practice reading is done aloud the powerful tool of auditory memory is added.

Use of Auxiliaries

The presence of the audience at the time a talk is given gives many opportunities for "getting an idea across" which are not allowed in a written report. Much too frequently these opportunities are ignored. Slides can be used, demonstrations may be given. Certain classes of large scale samples may be exhibited. All of these serve to break the monotony and sustain interest as well as bring in the psychological value of utilizing the visual as well as the auditory senses. When demonstrations are used, a very careful check on facilities available should be made and just before the meeting opens a complete review of the demonstrations should be performed, taking into consideration its *visibility to those in the back of the room*, lighting effect, and possible conflicts of the set-up with other speakers. Samples should not be used unless they are large enough so that the characteristics which are discussed can be clearly seen from all parts of the room. Otherwise, you have introduced a medium which can be appreciated by only a small part of the audience while the others are denied the descriptive language which normally would be utilized.

If slides are used care should be taken to inform those arranging for the meeting ahead of time of the size of the slides. It is wise to have an assistant, thoroughly familiar with the talk, sit with the slide operator to make sure the slides are exhibited in proper sequence, guide him through places where it may be necessary to turn back to discuss previous slides and prepare against the all too embarrassing accidents which so frequently occur. The assistant should, if possible, be so familiar with the talk that he can indicate the time to change slides from set cues, thus avoiding the necessity of giving directions to the operator from the platform. The speaker should check the lanterns just before the meeting, make sure that it will take the slides which he has provided and make sure the operator knows where to place the lantern to secure proper focus on the screen. The screen must be large enough to carry a readable picture to the entire audience.

The slides themselves should be designed to illustrate a minimum number of points each. Usually no more than two or three variables can be compared on one slide. The essential message of the slide should be clearly printed on it so that the observers can verify visually the message which the speaker is presenting while the slide is in view. The minimum lettering size should be at least twice as large as typed letters—usually larger. It is better to use three slides, each of which presents a single simple comparison, than a single slide which at one time—(Continued on Page 60)



Giles E. Hopkins, left, author of the accompanying article, is of the opinion that quite a bit more preparation could be made by speakers prior to delivery of talks before technical sessions. "We have all been instructed, entertained, bored or confused as we have listened," he states. "The cause of this wide variation in our reactions has, of course, been partially influenced by our momentary degree of attentive-

ness, interest, fatigue or preoccupation. In justice, however, we are also well aware that these reactions have been influenced by the organization of the ideas presented, the mode of delivery and the degree of efficiency shown in utilization of auxiliary facilities." The editors trust that publication of Mr. Hopkins thoughts will have some influence upon speakers when it is again possible for them to address the textile industry at technical meetings.

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Better Quality Finished Goods Through Informative Test Reports

— Anonymous —

This article discusses the increasing number of so-called codified plans now being promoted by various organizations for the classification of dyed, printed and finished goods under standard specifications. These codified plans contain different specifications originated mostly from some of the country's leading textile and testing societies or from governmental bureaus. According to the author, who desires to remain anonymous, these codified plans have weaknesses along with their many values.

THERE are numerous organizations, some affiliated with the textile industry, which have developed splendid series of color fastness, shrinkage control and various other requirements that are codified under one heading with sub-heads. These requirements are usually worked out on the "step system," with an initial plan for ordinary commercial goods, a second for commercial direct dyed goods which possess the best possible fastness for other than naphthol dyed, and a third plan representing the very best in fastness plus the newest finishes.

These systems of quality control set up definite lines of demarkation for classifying finished fabrics and yarns with resulting protection for mills, converters and consumers from certain unscrupulous manufacturers and handlers. Sometimes the organizations which promote these codified quality plans allow sales enthusiasm to detract from the real value which the textile industry should receive. Some have followed the old American habit of attempting to set up a bigger and fancier group of specifications than sponsored by other organizations.

The prime objective of any group of specifications is to classify the finished fabrics and yarns so that false claims can be detected quickly and those responsible can be dealt with accordingly. Specifications are excellent when they actually fit the average quality of finished goods in a particular class. But they are certainly unfair when too rigid specifications are imposed on different types of goods handled by certain dyeing and finishing operations, when it is generally known that only a very limited number of colors will approximate these requirements.

Sponsors of these plans will reply that their idea is to force research and development of new dyeing methods and finishing operations. This is very true, but the war period seems an inopportune time for such vigorous promotion; the available group of higher quality dyestuff and finishing products has been steadily restricted during the past few years. Such things are bad for hard-working dyers and textile chemists who continually seek to improve or maintain quality. Criticism of these codified plans comes from competent plant officials who are trying to meet specifications

which they claim have been "arbitrarily imposed without a thorough study of the situation." They state that such specifications should be elastic and permit upward progress; too much rigidity, they say, makes the plans top-heavy and impractical, thus stifling initiative. Under such conditions, short-cuts which must be made in attempts to meet the specifications actually destroy the value of various finished goods classifications.

Plant chemists and dyers ask two questions constantly: (1) When will dyestuff companies prepare color cards with practical information on fastness and dyeing properties for present-day specifications? (2) When will textile chemical concerns cease to send out beautiful folders which show organic chemical chains, and begin to distribute really practical data which will help dyers and finishers? Most of the dyestuff suppliers have recognized the weak points of their color cards and are endeavoring to remedy this lack of practical information. The very large dyestuff firms must publish color cards which give information of a general nature; however, some are offsetting this by developing loose-leaf folders in which bulletins on new ideas are inserted from time to time. The larger firms are also changing to the small specialized color cards.

Textile chemical companies are beginning to realize that folders most useful to practical mill operating executives are those which contain straight technical data relative to the physical properties of the products offered along with procedure for application. A third type of folder which has appeared takes up research data in a semi-practical style and offers information on application of pure research. Only the larger dyeing and finishing plants with adequate technical staffs can use these bulletins advantageously.

Weak Points in Codified Plans

All dyers and finishers are desirous of improving their operations in order to obtain better production and quality in fabrics and yarns. However, they do not feel that it is entirely fair to the consuming trade to place certain rigid requirements on fabrics; one tub fast classification eliminates colors such as naphthol reds and wines which are not satisfactorily or economically dyed with vats. In many cases plant officials have spent years developing procedures for dyeing naphthol red and wine shades which are far superior to those produced with vat colors; nevertheless, they complain of having to delete these shades from their lines since they do not pass new specifications.

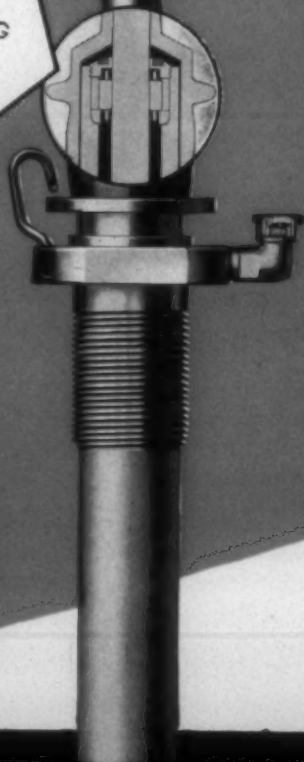
Considerable progress has been made in the dyeing of naphthol reds with resultant good fastness to peroxide bleach, and other naphthols with good fastness to chlorine bleach. This progress has come about because of the better quality of naphthols being marketed as—(Continued on Page 61)

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Chattanooga's Textile Industry Is Honored

THE textile industry of metropolitan Chattanooga was accorded national honors the evening of March 2 when Coca-Cola's "Victory Parade of Spotlight Bands" in a coast-to-coast radio program saluted the accomplishments of the 15,000 textile workers. Upward of 5,000 gathered in the Tennessee city's Memorial Auditorium for the program.

In their first public appearance since returning recently to the United States, six veterans of Bastogne came before the capacity audience to tell briefly of their experiences and to stress the urgent need of war workers "staying on the job to finish the job." Two illuminated displays, flanking the big stage, emphasized the determination of the textile industry to do exactly that. The appearance of these combat veterans of the 101st Airborne Division, which broke the back of the German offensive by holding the town despite overwhelming odds, drew a thunderous response. It was made possible through the co-operation of Maj.-Gen. Frederick E. Uhl, commanding general of the Fourth Service Command, who assigned Capt. Thomas B. Sawyer, chief, industrial services branch, Fourth Service Command, to accompany the beribboned veterans on this trip. The Army also staged an impressive "Cotton in Combat" display in the lobby of the auditorium during the big show, which attracted much attention and gave the textile workers a vivid realization of the importance of their production.

The Chattanooga area textile industry, it was announced, since Pearl Harbor, has produced 40 million pounds of yarn, 65 million yards of cloth, and over 22 million pairs of hose—enough to equip every member of our armed forces with two pairs! Principal war products include blankets, sleeping bags, lining cloth, netting, suiting goods and hosiery. Another feature of the show that drew much attention was the appearance of Miss Jane Burdette Anderson of Jackson,

Tenn., the state's "Maid of Cotton." The Chattanooga textile industry was represented on the arrangements committee by T. B. Farmer of Margate Hosiery Mills, Inc., C. I. Waller of Richmond Hosiery Mills (Rossville, Ga.), R. E. Hardesty of Davenport Hosiery Mills, Inc., and B. P. Barnes of Dixie Mercerizing Co. Promotion and co-ordination was handled by M/Sgt. Early Maxwell of the public relations office at Fort Oglethorpe, Ga., and Bart Leiper, executive director of Chattanooga, Inc.



The Chattanooga textile rally featured a "Cotton in Combat" display of military items produced in that Tennessee city. The display drew much attention from the large crowd, which saw its products demonstrated by soldiers from nearby Fort Oglethorpe, Ga.



Six "Heroes of Bastogne" are shown making their first official appearance in the United States at Chattanooga's rally for textile workers. Being interviewed at left by Capt. Thomas B. Sawyer is Sgt. Edward Ford, and others, left to right, are Capt. Robert H. Lemmon, S/Sgt. Jackson B. Vail, Pfc. James L. Ball, Pfc. George Long and Cpl. Ralph Cox. Above, these members of the 101st Airborne Division chat with Miss Jane Burdette Anderson, Tennessee's "Maid of Cotton."

Mr. Henry Hawksley is spread too thin these days....



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Patents Disclose Developments of Interest To Textile Industry

JAMES H. BURGESS and G. W. Fender of Marion, N. C., have received a patent on a warp stop motion mechanism for looms, according to Paul B. Eaton, patent attorney of Charlotte. A bar, U-shaped in cross section, is provided with notches on its upper edge and another bar having notches on its upper edge reciprocates back and forth so that when a drop wire drops into the notcher in the U-shaped bar and the inside bar, it will stop movement of the inside bar and thus stop the loom. Thus far this structure is conventional in looms, but the patentees have devised notches on the lower edge of the inside bar so that as it reciprocates back and forth it will gradually expel lint and other foreign particles which may have collected in the U-shaped bar.

Albert M. Guillet of Charlotte has secured a patent on a roll stand rack for roving frames, which comprises a foldable member adapted to rest on top of three spindles in the roving frame, and by placing several of these along the entire length of the roving frame, the top of the member, by means of having three notches therein, can be used to receive the elongated bottom rolls of the roving frame when they are lifted out of the bearings of the roll stands for repair or alignment of the roving frame.

Ray W. Hook of Union, S. C., has received a patent on a loom part, namely, a parallel plug having an uprising fin thereon which projects through a slot in the upper surface of the parallel, so that this fin will pass into and out of a slot in the picker stick shoe, and thus, if the vertical fin

should become broken, a new parallel plug can very easily be inserted, whereas heretofore, this vertical pin has been cast as a part of the parallel, which necessitated renewing the entire parallel. This patent is assigned to Monarch Mills.

Wilbut D. Stegall, superintendent of the Charlotte plant of Albert J. Barton, Inc., has patented a harness actuating mechanism for looms, which also covers the actuation of the dobby looms, in which a slower rate of movement is given to the heddles as they approach uppermost and lowermost positions. There is a substantial dwell at the uppermost and lowermost positions of the heddles, and thus allows the shuttle plenty of time to pass through the shed without any damage to the shed.

Other recently-granted patents include those of John W. Jones of Greenville, S. C., on a cloth take-up mechanism for looms; Sumner H. Williams of Charlotte, on a new apparatus and method for continuous dyeing and treating fabrics; Richard T. Osteen of Greenville, on a heddle frame support, assigned to Walker Mfg. Co. of Philadelphia; John O. Hunt of Greenville, on a loom, assigned to Ware Shoals (S. C.) Mfg. Co.; and Clay L. Young of Red Springs, N. C., on a warp beam transferring apparatus.

Patents have been applied for on behalf of Tennessee Eastman Corp., Kingsport, Tenn., and Joseph Bancroft & Sons Co., Wilmington, Del., on a new vat dyeing process for all-acetate rayon fabrics or fabrics containing both cellulose acetate and natural or regenerated cellulose fibers, it was disclosed by Dr. Harold DeWitt Smith of A. M. Tenney Associates, Inc., New York City, speaking at a recent dinner meeting of the Quebec section of the Canadian Association of Textile Colorists and Chemists in Montreal. Dr. Smith's subject was "Dyeing of Textiles Containing Man-made Fibers."

By this new process, Dr. Smith said, "all acetate rayon fabrics or fabric containing cellulose acetate in conjunction with natural or regenerated cellulose fibers may be dyed with all types of vat dyes in such a way that solid shades are produced on combination fabrics as well as on all acetate fabrics. Patent applications have been filed by the Tennessee Eastman Corp. upon the original discovery, and by the Joseph Bancroft & Sons Co. upon process modifications and improved mechanical equipment used in the application of this dyeing procedure.

"Since the high molecular weight anthraquinone vat dyes may be applied by this method, it is possible to obtain all the valuable, durable properties inherent in this type of dye-stuff, retaining at the same time the excellent stabilizing properties and the characteristic hand and feel of cellulose acetate, resulting in a fabric of superior physical properties.

"The practical development of this process is being done by the Bancroft Co. with the technical assistance of the Tennessee Eastman Corp. The proc—(Continued on Page 49)

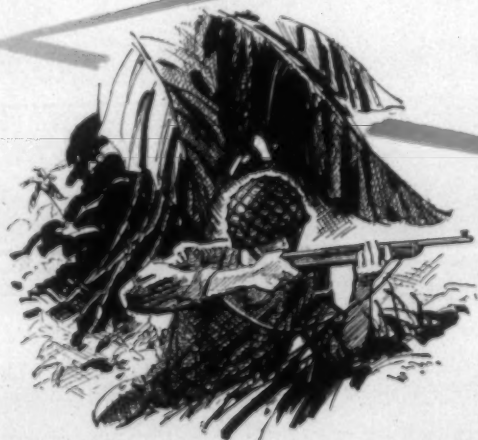


Dr. Roy Chapman Andrews (right,) noted author and explorer, with George J. Stobie, Maine fish and game commissioner, inspects the first wool sports shirt for consumer use that has been treated with American Cyanamid's melamine resin, Lanaset, which controls the shrinkage of wool and permits the repeated laundering of wool garments.

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Maintenance, Care and Operation of Cards

By I. M. SHOPMAN

THE most important things in good carding are to keep the cards clean, well lubricated, clothing wire sharp and settings properly adjusted.

The outside frame work should be cleaned with a brush each shift, along with lickerin and doffer covers. Cotton and waste should be removed from between the arches and end of cylinder, and doffer sides and all screens cleaned. When the cards are down for grinding, flat brushes should be kept cleaned and revolving at all times, and replaced when needed. This is important to keep the end of the flats cleaned. The scavenger rolls over the feed rolls and just behind the lickerin should be checked each shift to see that the ends of the scavenger rolls are clean and revolving at all times. Cards equipped with continuous strippers should be checked at each grinding by removing the stripper and checking the needles. All bent and broken needles should be replaced, and a supply of new needles should be kept on hand for this purpose. During each grinding the setting of the stripper needles to the cylinder wire should be checked, and if necessary the continuous stripper reset. This is important to insure longer life of the stripper needles and good quality carding. When laps are about ready to run out at the back, they should be watched to prevent splitting. The lap should not be allowed to run out completely and into the lickerin, as this part of the lap is usually folded or crimped when started on the picker, and if allowed to run through the feed roll and on into the card, it will not only damage the lickerin wire, but will sometimes break the mote knives and do expensive damage to the cylinder clothing. Therefore, the tail end of the lap should be torn off 12 to 18 inches before entering the feed rolls. The first yard of a new lap should be started in the reed roll straight, which will prevent such trouble as folded or crimped laps. The card coilers should be kept clean and properly adjusted to

prevent sagging or stretching of the sliver between the calender rolls and coiler. When an end has been put up at the front of the card, the waste should be removed from the floor at that time. Heavy or light sliver is removed from the can when the end is pieced together.

Experience has indicated that the following settings are most suitable for the average mill. A setting of .029 is good for both top and bottom of back plate. This setting at the bottom controls the draft and keeps cotton from blowing back on the lickerin. This same setting at the top of the plate permits the cotton to leave the cylinder more evenly, resulting in better carding, as more neeps and other foreign matter is removed from the cotton.

All flats should be set .010 to the cylinder except the flat at the back setting. With properly adjusted flat chains, the flats at the back setting should be set to .012. The purpose of this wider setting at the back is to let the cotton come in contact more easily with the other flats, resulting in more even and uniform web (flat setting based on use of 50 to 60 grain sliver). Lickerin screen to lickerin setting should be .034 at all points. It is important that this setting be kept accurate, as it controls the draft and reduces the amount of fly from the lickerin. With wider setting the amount of fly will be increased. A back cylinder screen setting of .022 will deposit the cotton more evenly on the cylinder and prevent bunching. Top and bottom front plates set at .034 will regulate the amount of waste removed by the flats, which should not exceed three and one-half per cent of flat strips. Fly and motes removed for good carding should not exceed one to one and one-quarter per cent.

Cards should be ground every 120 operating hours and flats checked at every grinding. Lickerin and screen settings must be checked each 240 operating hours. Doffer cylinder and feed plates should be set each grinding period. During grinding the lickerin should be taken out, shrouds cleaned, wire inspected, all bent teeth straightened and filed smooth with lickerin file. Lickerins kept in good condition greatly affect the quality produced by the card. Other recommended settings are as follows: lickerin to cylinder, .007; feed plate to lickerin, .007; top mote knife, .012; bottom mote knife, .010; back lickerin screen, .034; center lickerin screen, .034; front lickerin screen, .034; back cylinder screen, .032; center cylinder screen, .034; front cylinder screen, $\frac{3}{16}$ -inch; doffer to cylinder, .007; doffer to comber, .017; bottom front knife plate, .034; flat stripper comb, .017; and top edge front knife plate, .034.

All grease packed bearings should be lubricated every eight operating hours. Comb boxes should be checked each 40 operating hours by removing plug in top of comb box. This should be filled with good grade comb box lubricant to the joint just below the overflow of the large oil hole and breather at side of the box, and at the same time clean out any lint which has accumulated in or around the hold. All moving bearings (100 R.P.M. or less) should be lubricated once each 40 operating hours.



Veterans of World War II, honorably discharged from the Army, Navy and Marine Corps, hang up their uniforms, and, in what is believed the first case on record, accept for fellow war workers the fourth Army-Navy "E" award received by Brown Instrument Co., Philadelphia industrial precision instrument manufacturer. The event took place Feb. 20. The Brown company has rehired every honorably discharged veteran former worker who has sought re-employment. Seated, left to right: John Bodner, Alex. Blank, Otto Kugler, Leo Geese, George Strubel and James Shockley. Standing, left to right: H. H. Ehrhart, George Schwinn and Francis Nealis.

Invisible Quality

Most AHCO PRODUCTS for sizing or finishing textiles, fall in the invisible category. Yet they are just as important to a garment as color, style and weave, — for the drape, the body, the softness, the washability, the water repellency, or the resistance to fading of a fabric, — all serve to build a reputation for the mill, the finisher and the manufacturer.

That AHCO PRODUCTS do their job well is evidenced by the fact that they have been used in steadily increasing quantities for 128 years. Let us demonstrate how they can solve your sizing and finishing problems.

ARNOLD, HOFFMAN & CO., Inc.

Manufacturing Chemists, Providence, R. I.
Established 1875. Plants at Dighton, Mass.
and Charlotte, N. C. Branch offices in New
York, Boston, Philadelphia, Charlotte.

MANUFACTURING



CHEMISTS

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The Pioneer Concentrated
Cotton Warp Size for
Better Weaving

AHCOSPUN SIZE

Makes better warps from
synthetics

AHCOWET

An outstanding wetting agent
for sanforizing and other
types of finishing

AHCOFIX

Keeps colors clear and
bright

AHCOVEL

Gives added softness and
drape to cottons and
synthetics

RESYNON

For extra body, fullness and
softness — cottons and
synthetics

Good STARCH FINISHES SHOULD BE FELT . . . NOT *Seen!*

Obtain full penetration . . . avoid dusting . . .
eliminate dull, lifeless colors . . . by using—

QUAKER **DIAPENE** C-101

To impart body, fullness and pliability . . . to overcome "dusting out" . . . and to assure bright, sharply defined colors . . . you need a *true plasticizer and binder*—not a "softener"—for the starch and talc in your pure and back-fill finishes. DIAPENE C-101 when used to replace 70% to 80% of the softener, actually plasticizes the starch. Thus modified, the finish penetrates the yarn thoroughly, without excessive surface coating. Specifically, Diapene C-101:

- Preserves brightness and definition of colors by making surface film thinner and more translucent.
- Binds starch and talc, producing a scratch-proof finish that does not "dust out."
- Gives all cotton fabrics a more desirable finish, better hand and greater flexibility than do ordinary "softeners."
- Makes thin, smooth starch mixes, which finish more yardage per gallon of solution, and thus reduce finishing cost.
- Is compatible with other finishing compounds and requires no special application methods.

On pile fabrics DIAPENE C-101 is often used as a pure finish. Its binding action helps to lock the pile fibres in a manner that produces an erect, full pile with a dense and uniform face. Fullness and pliant firmness are imparted to the backing.

A Quaker Process Engineer will gladly call and discuss with you how DIAPENE C-101 and other Quaker products might be adopted advantageously to the processing and finishing methods in your plant. There's no obligation, of course. Just use the convenient form below.

QUAKER CHEMICAL PRODUCTS CORP. CONSHOHOCKEN, PA.



Other Plants in CHICAGO and DETROIT Warehouse Stocks in Principal Industrial Centers

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Research and Process Engineers
and Manufacturing Chemists*

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Notes on Dyes and Dyeing

By GEORGE BROWN

Practical Application of Acetate Colors—Part Eleven

Parts Nine and Ten of this series on the practical application of acetate dyestuffs dealt respectively with the development of the different types of acetate colors for dyeing of acetate rayon and the preparation of acetate crepes and flat goods for dyeing. As explained, the types of acetates now used have been reduced to the (water insoluble dispersible) direct dyeing and the diazotized and developed types. The preparation of the standard types of acetate and viscose rayon crepes was described. Details were given on the open width boil-off machine and the scouring machine. The preparation of acetate flat goods such as satins, taffetas, sharkskins, etc., on jigs was given detailed treatment as to proper handling and preparation prior to dyeing.

In this article, the most economical preparation methods for handling novelty fabrics and various blends using acetate as one of the main fibers will be discussed.

THE description of equipment, methods and formulas for handling standard types of acetate and viscose rayon crepes was outlined fully in the prior article of this series. A full discussion of the preparation of acetate flat goods was given in the same installment. In this article the preparation of various blended fabrics containing acetate as one of the main fibers will be discussed.

The preparation of these all-acetate and acetate-blended fabrics is slightly similar in purpose, but quite different in the actual carrying out and the final preparation of goods prior to dyeing and finishing operations. Practically all of the lightweight standard construction acetate and viscose rayon crepes are given an embossing in the gray, then put through boil-off (crepeing) and scouring operations. The purpose of the embossing is to imprint an engraved crepe design on the gray cloth. This design plus the crepeing action during the boil-off operation helps to equalize the filling and warp so that the prepared fabric has a uniformly equalized creped effect which will hold throughout the dyeing and finishing operations and give a uniform creped appearance to finished goods.

With acetate flat goods, this preparation procedure depends purely on the care in handling them in open width. Care must be taken that the goods are not run at too high a tension; temperatures and pH of processing baths must be kept uniform on the jig. Goods must be well scoured and desized without the use of too harsh solvents and detergents, and delivered ready for dyeing and finishing with a uniform feel, free of cracks and chafe marks.

Blended fabrics such as shirtings and dress goods require a different type of preparation from the crepes and flat goods. These goods may be prepared by one of the following methods, depending upon type of equipment available

in the various plants where goods are processed: (1) medium to heavy gray goods padded with desizing agent, batched and run on jig for scouring off sizing material ready for dyeing; (2) light to medium weight goods padded with desizing agent, batched for solubilization of sizing, then scoured off either on jig or dyebeck ready for dyeing; (3) putting the desizing agent either in the jig or dyebeck bath and running the goods at sufficiently low temperature for satisfactory desizing, then entering scouring materials such as synthetic detergents and raising the bath to scouring temperature, draining off and preparing fresh bath for dyeing.

A greater percentage of blended fabrics containing acetate in either filament or spun form are mixtures constructed of acetate-spun rayon, acetate-cotton or acetate-spun rayon and cotton. When goods are run as outlined in the first two methods, the desizing mix is made up of 40 to 60 pounds of malt enzyme and four to six pounds of penetrant which is free of disinfectant agents harmful to enzymes, using a 250-gallon reserve tank. Pad one end at 110-130° F. Batch goods on shell, and allow them to stand two to four hours for complete solubilization of the sizing agents on warp yarns. To prevent partial drying out during this period the batched rolls may be dampened by overhead sprinkler or hose; dried out portions of sized goods leave resist marks during dyeing. The amount of malt enzyme required depends upon construction of goods and concentration of solution.

Mix six to 12 pounds of bacterial enzyme and three pounds of penetrant which is free of disinfectants. Pad this at 130-160° F. and batch two to four hours for solubilization of sizing compound. Mix eight to 16 pounds of pancreatic (animal) enzyme and four to six pounds of penetrant (free of disinfectants). Pad at 110-130° F. and batch two to four hours for complete solubilization. Some of the improved malt enzymes have a light solubilizing action on the various sizing compounds used on acetate. For this reason a small amount of a proteolytic enzyme (bacterial or pancreatic) must be used in the desizing bath to insure solubilization and removal of sizing agents.

Scouring Off Bath

The scouring off bath may be run in the dyebeck if construction of the goods permits rope form treatment; otherwise it is best to scour off on the jig or some form of open width scouring unit which does not exert excessive tension. With a 50-gallon jig scour, goods which have been padded with desizing agents are entered into jig by running them through cold water, raising bath to 160° F., running one end on lightweight goods and two or three on heavier fabrics. Drop this bath and prepare fresh bath with three pounds of sulfonated alcoholate and three pounds of ammonia (add on first and second ends). Bath is started at

140° F., raised to 175° F. and given two to six ends, depending upon how difficult the goods are to scour and soften for satisfactory dyeing.

Some types of acetate rayon blended goods require a light bleaching operation after scouring in order to give a uniform bottom, necessary in dyeing light shades. Two types of chlorine and one peroxide (most practical but more expensive) are employed.

The buck bleach, 60-gallon jig bath, is made up of five gallons of hypochlorite bleach (five per cent available chlorine) and one-half pound of 56 per cent acetic acid. Enter goods cold and run four ends. Draw off bath, and give cold rinse. To remove chlorine make up fresh scour bath with one or two ounces of bisulfite of soda per gallon. Raise bath to 160° F., running four ends if necessary. All traces of chlorine must be removed or else an odor will remain on goods and affect shades of dyed acetate yarns. Test goods with potassium iodide starch paper. Another method of removing chlorine is to replace sodium bisulfite with sodium hydrosulfite; the amount necessary can be reduced to one-half or less. Many dyers have found this latter agent more efficient in chlorine removal.

The hot chlorine bleach (60-gallon bath) is made up of six to eight quarts of hypochlorite liquid bleach (ten per cent available chlorine) and two pounds of penetrant, stable in bleach bath. Bath is prepared on alkaline side, 9.5 pH,

and goods are entered cold. Run four to six ends at 175° F. Give a cold running rinse, then fresh bath for scouring off and removal of chlorine; use either sodium bisulfite or sodium hydrosulfite for this. Test for trace of chlorine, and if necessary, repeat anti-chlorine bath.

Peroxide bleach for jig (40 gallons) is made up of five to ten pounds of 100-volume hydrogen peroxide, one pound of penetrant (stable in bleach) and two pounds of ammonia. Start at 140° F. one end and raise to 175° F. Run two ends and then two additional ends with one extra pound of ammonia. Drop, then give running wash and fresh bath preparatory to dyeing.

New York A.A.T.C.C. Conducts Symposium On Finishing Developments

A symposium on "Recent Developments in Finishing and Their Applications to Fabrics" was conducted at the March meeting of the New York section of the American Association of Textile Chemists and Colorists held at the Downtown Athletic Club in New York. Alden D. Nute of the Calco Chemical Division, American Cyanamid Co., Bound Brook, N. J., spoke on "Some Recent Aspects in the Finishing of Textile Fabrics With Melamine Resins." He pointed out that low polymer urea-formaldehyde resins have been used successfully for the past ten or 15 years in the production of crease, crush and shrink resistant finishes in cellulosic materials. Such resin forming products have found wide application to such fabrics as transparent rayon velvets, spun rayon dress goods, spun and acetate mixed constructions, cotton voiles and organdies, as well as marquisette curtain materials of various types.

"With the advent of the melamine-formaldehyde resins," Mr. Nute said, "the field of resin applications for textiles has broadened considerably." These new resin materials have several very decided advantages over the corresponding urea-formaldehyde types, more particularly cold water miscibility, excellent stability to storage, and little or no loss in tensile strength from chlorine absorption during laundering.

Mr. Nute brought out the fact that the latest and most unique application of the melamine type resins has been for the shrinkage control of wool and wool mixed goods. "In this field," he said, "the melamine products are outstanding in their actions on both woven and knitted constructions."

Capt. Joseph E. Goodavage of the Philadelphia Quartermaster Depot discussed "Some Aspects of Finishing Marquisette with Cellulose Derivatives" in the paper which he presented. Captain Goodavage referred to the importance of netting to the fighting man and the types of netting which have been employed up to the present day. These included the knitted types such as Nottingham, Trico and Bobbinette, and the present woven marquisette. He also referred to the development of the headnet and mosquito bar. The finishing procedure was illustrated by a flowsheet of finishing operations with emphasis on the production of a permanent finish using cellulose derivatives, and incorporating pigment coloring, mildew-proofing and water repellent treatment.

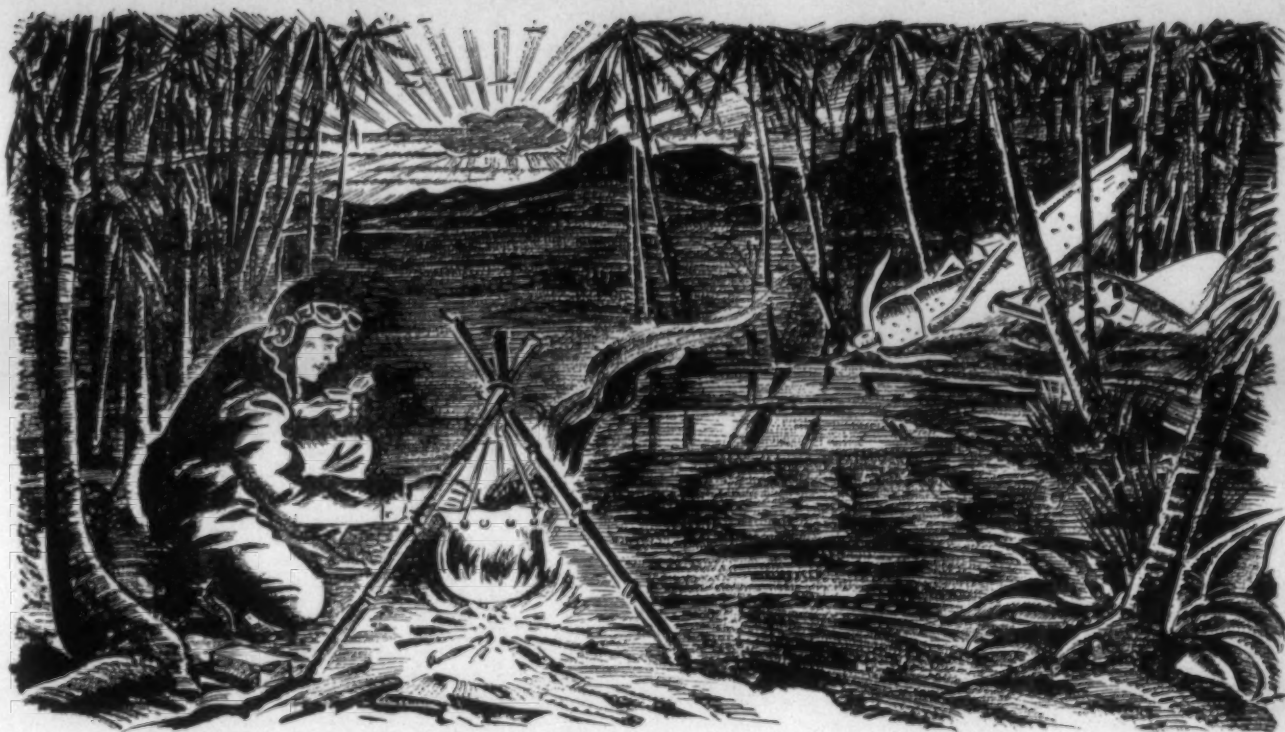
The subject of the paper presented by Robert R. Ackley, fellow for the Onyx Oil & Chemical Co. at the Mellon Institute of Industrial Research, Pittsburgh, Pa., was "The Softening and Lubrication of Textiles." Mr. Ackley stressed the nature of softening and lubricating action and the means by which it may be obtained through various agents.

THERE'S ONE IN EVERY MILL

—by WILMER C. WESTBROOK



Every shop has its clown; he is an irresponsible person who wants to raise a laugh, usually at the expense of others. The more pain or embarrassment he causes, the happier he becomes. One of his favorite tricks is that of sneaking up behind a fellow-worker and punching him in the ribs or yelling in his ear to make him jump. He also delights in turning the compressed air nozzle on someone or tripping them with the hose. Others in his bag of tricks are tipping a fire bucket when an unsuspecting person is beneath it, throwing wet balls of yarn, putting grease or glue on handles, cranks and levers, hiding tools, sending green hands on wild goose chases, etc. Everyone enjoys a good joke but most of the practical joker's tricks have no place in a textile mill. Not only does he slow production but he also causes many accidents, some of them fatal. Probably the best cure for a practical joker is to isolate him from others as much as possible and give him plenty of work to occupy his hands and mind.



Camping Out—War Style

Airmen who are forced down in desolate regions have their cooking utensils along. A new collapsible container made of asbestos fabric impregnated with synthetic rubber is carried for emergency use.

This recently developed fabric, Asbeston, is a heat-resistant material made of cotton and asbestos. It will not burn.

Because of its strength and versatility, cotton is a preferred fiber for use in the manufacture of rubber goods such as these collapsible containers. And into every three pounds of finished rubber products, goes one pound of textile material.

Butterworth Machines have an important role to play in the produc-

tion of every textile necessity—bleaching, boiling-out, drying, calendering, dyeing.

The cooperation of Butterworth Engineers is freely offered to mills seeking to achieve increased productive capacity . . . to repair or replace obsolete equipment . . . to develop new machines to meet special problems . . . to improve plant layout.

All our facilities not required for Ordnance production are available to help solve finishing problems, and aid in your post-war plans.

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Butterworth

MERIDIAN, MISS.—Rainfall of 1.78 inches, accompanied by a 30-mile-an-hour wind, caused damage to cloth for government orders and the temporary closing of the Southern Cotton Mills March 15. The mill employs 250 people.

MAIDEN, N. C.—Recent improvements at J & J Spinning Mills include installation of a Parks-Cramer automatic humidifying system, a new Universal winder, an improved heating arrangement and hardwood floors throughout the plant. D. B. Johnson is owner and president of the company, while other key men in the organization are L. A. Funderburk, superintendent; W. J. Buckner, card room overseer; Perry Campbell, overseer of spinning; George Parker, overseer of twisting; Ott Sigmon and J. E. Morrow, in charge of second and third shifts; and Z. T. Wise, master mechanic.

KANNAPOLIS, N. C.—Cannon Mills Co. has been commended by the Army Service Forces for "full-hearted co-operation" in supplying towels for Army personnel. Company officials shared the commendation with their employees as they stated that the Army's exchange service is using more towels than at any other time during the war.

MARTINSVILLE, VA.—The War Production Board has approved a project to extend the shipping and storage facilities at the Martinsville nylon plant of E. I. du Pont de Nemours & Co. Work on the project, which will cost approximately \$400,000, will get underway in the near future. The additions will eliminate temporary storages and will expedite the handling of heavier deniers of yarn for military uses.

Two More Mills on "E" Roll

A plant in Texas, Denison Cotton Mill Co., joins the long list of Southern textile manufacturing firms honored for excellence in war production when it receives the Army-Navy "E" award at ceremonies March 22 at Denison. Presentation of the pennant will be made by Brig.-Gen. John A. Porter, commander of the Army Service Forces Depot at San Antonio. Acme Spinning Co. at Belmont, N. C., has also been notified that its military output has merited the "E" flag, and presentation will be made some time in April. This latter company is, as far as can be determined, the only ply yarn mill to win the award.

The continued outstanding war effort of four other Southern firms has resulted in the recent award of white stars for previously won "E" flags. A fourth star represents the fifth award to Cramerton (N. C.) Mills, Inc., a third star has been added to the pennant of Piedmont Cotton Mills at Egan, Ga., and second stars have been presented to North Carolina Finishing Co., Yadkin, N. C., and Firestone Cotton Mills, Inc., Gastonia, N. C.

ROBBINS, N. C.—A certificate of incorporation has been granted Robbins Foundation, Inc., for "religious, charitable and educational purposes" for the benefit of employees of Robbins Cloth Mills, Inc. It is a non-stock corporation, with the incorporators being Karl Robbins and Edward A. Werner, both of New York, and W. P. Saunders of Robbins and others.

SYLACAUGA, ALA.—A total of 2,117,984 pounds of cloth and sales yarn was produced during one week in February by Avondale Mills, more pounds than have been produced in any one week since the company was founded in 1897. The week's production was divided into 1,226,555 pounds of cloth and 891,429 pounds of sales yarn.

SHANNON, GA.—A big air-freighter with a full consignment of rayon gray goods was sent to New York this month by Brighton Mills, Inc. The entire cargo space of the American Airlines plane was given over to the merchandise, which was being shipped to Renoir Fabrics, Inc., New York converters. After processing, the cloth will be re-shipped to California to be made into dresses.

WALHALLA, S. C.—Johnson & Johnson, Inc., drug manufacturer, has announced acquisition of a Walhalla cotton mill in exchange for its equity in a 43-story Broadway skyscraper. The plant was formerly owned and operated by the Victor-Monaghan Co. Equipped with 32,416 spindles and 748 looms, it will be operated by Johnson & Johnson's cotton manufacturing subsidiary, the Chicopee Mfg. Corp., currently operating plants in Massachusetts, New Hampshire and Gainesville, Ga.

WAYNESBORO, VA.—Double production is expected in view of the building extension and additional employees which are planned by Esmond-Virginia Co., Inc. Additional equipment has been moved from the Lynchburg plant, which closed Feb. 15. The War Manpower Commission has approved the company's application for the hiring of additional employees, and the War Production Board has approved application for building expansion.

RADFORD, VA.—American Viscose Corp. has purchased a 741-acre site here for the erection of a new plant for the production of viscose process rayon staple fiber, officials of the company have announced. Construction work will not be started until the progress of the war makes it possible to obtain the needed materials and equipment. The Radford site was selected after several surveys were made of prospective locations and an analysis of the water in New River at Radford was made showing it to be suited for use in rayon production, which requires the use of large quantities of water of a suitable type. Also drillings were made to determine the geological structure of the land and it was found that it would be satisfactory for heavy construction. The plant will be the eighth for American Viscose Corp. and plans call for the employment of 1,000 persons.

Sterling Ring Travelers

BOTTLE NECK

Transportation difficulties not improving. Longer hauls are sometimes quicker than short ones. Both are slow, so keep a constant check on all supplies. Don't get caught.

Southern Representatives

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Box 443 Spartanburg, S. C.
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79 YEARS OF SERVICE TO THE TEXTILE INDUSTRY

Since 1866 we have supplied starches, gums and dextrine to the Textile Industry.

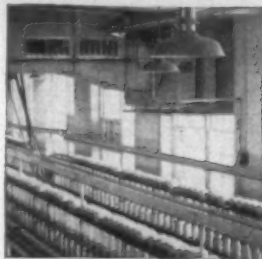
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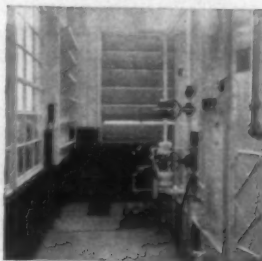
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for old Spinning Rooms and Weave Rooms



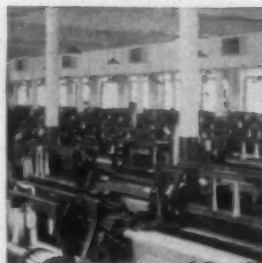
Air enters through
Airchanger unit

Regain higher and more dependable. Greater strength and more uniformity in numbers.



Or through central station
air washer

Drafting of Fibers smoother and more compact. Waste and fly reduced to a remarkable degree.



Propelled through ducts

Fewer Breaks. Not as many stops or piecings. Not as many adjustments. Cleaner and very much more comfortable rooms.



Automatic Shutters
let heat out

Better Product. And very often as much as 2% more production.

Certified CLIMATE

with its exclusive method of control has been known to **PAY FOR ITSELF** in a year, or less.

Parks-Cramer Company

Fitchburg, Mass.

Charlotte, N. C.

PERSONAL NEWS

James W. Harrell has been promoted to the newly-created position of assistant general manager at Ware Shoals (S. C.) Mfg. Co. He was formerly superintendent of the bleachery at Ware Shoals.

J. D. Faiella has been named director of the Plastolein products department of Emery Industries, Inc., Cincinnati, Ohio. This department has been established to handle the development and commercial application of a series of new fatty acid derivatives and their esters to the manufacture and modification of resinous materials used in the production of coated fabrics and other items.

Allan Craig has been made divisional manager of the Southeastern division of Link-Belt Co., with headquarters at Atlanta. He has been associated with Link-Belt since 1923. Richard B. Holmes, who has been general manager of the Atlanta plant, warehouse and sales office since 1943, has been promoted to the position of general manager of the company's Philadelphia plant operations. Rod S. Galloway has succeeded Mr. Holmes as general manager of Atlanta plant operations.

George Schneider, a vice-president of Celanese Corp. of America, has been elected a director of the firm. He has been associated with Celanese since it was founded.

William H. Scott, president of Aqua-Sec Corp., New York, is reported to be recovering satisfactorily following a recent operation.

A. G. Bussman has been elected vice-president in charge of sales for Wickwire Spencer Steel Co., New York. Since becoming connected with the company in 1930 he has been manager of the wire and springs division, general sales manager and assistant to the executive vice-president.



Paul A. Redmond, left, president of Alabama Mills, Inc., Birmingham, has been elected to the executive committee of the Cotton-Textile Institute, Inc. He has been active in industry affairs for the last two decades and a director of the institute since 1934. He was president of the Alabama Cotton Manufacturers Association in its 1939-40 period. Mr. Redmond's firm has plants at Aliceville, Clanton, Dadeville, Fayette, Greenville, Jasper, Winfield and Wetumpka, Ala.

Robert J. Overstreet has been appointed by Reliance Electric & Engineering Co. as its representative in the Carolinas and eastern Georgia. He is a graduate of Virginia Polytechnic Institute and was formerly employed by J. E. Sirrine & Co., Greenville, S. C., and more recently by J. A. Jones Construction Co. at Brunswick, Ga. His headquarters will be at Greenville.

James E. Shields has resigned as rayon sales manager of J. P. Stevens & Co., Inc., New York. He will be succeeded by Joseph H. Sutherland, recently elected a vice-president of the company.

S. Funderburk, formerly associated with Cannon Mills Co. at Kannapolis, N. C., is now office manager for Pomona Mfg. Co., Greensboro, N. C.

J. Freyhan Odenheimer has been elected president of Lane Cotton Mills at New Orleans, La. The new chief executive, a former vice-president, succeeds his father, Sigmund Odenheimer.

R. A. Willis, executive vice-president and treasurer of Manetta Mills at Lando, S. C., celebrated his 75th birthday March 5.



Walter H. Ridley, left, has been appointed head of the textile industry division of Foxboro (Mass.) Co., manufacturer of recording instruments and controllers. Mr. Ridley is a graduate of Massachusetts Institute of Technology and was formerly associated with James Hunter Machinery Co. and Riggs & Lombard, Inc. For the past two years he has served with the War Production Board. Recently Mr. Ridley and W. W. Barron of Atlanta, the company's Southern representative, made a tour of textile plants in the South.

W. H. Norblett is now superintendent of Tolar, Hart & Holt Mills, Inc., at Fayetteville, N. C.

Roy W. Collins has become personnel manager and methods and standards engineer at Galax (Va.) Weaving Co. following his transfer from St. Pauls (N. C.) Rayon Mills by Burlington Mills Corp. At Galax he succeeds John D. Rollins, who entered the service recently. Both men were associated at one time at Riverside & Dan River Cotton Mills, Inc., Danville, Va., Mr. Rollins as vocational training director and Mr. Collins as employment manager.

W. Irving Bullard, president of E. H. Jacobs Mfg. Co., has announced that he will not be a candidate for re-election to the Charlotte City Council.

Cherry Logan Emerson, well known in the textile industry as vice-president of the Atlanta engineering firm of Robert & Co., has been appointed dean of engineering at Georgia School of Technology.



Frederick L. Bissinger, left, has been elected secretary of Industrial Rayon Corp., Cleveland, Ohio. He joined the company in 1942 as head of its patent department, which continues to be under his direction. D. S. Mallory, secretary-treasurer of Industrial Rayon since 1925, will continue as treasurer, with responsibility for financial and related matters.

W. M. McLaurine of Charlotte, who resigned March 1 as secretary and treasurer of the American Cotton Manufacturers Association, has accepted the temporary position of director of foundations at North Carolina State College, Raleigh. He will coordinate promotion and publicity for the four foundations which have been organized during the past two years by alumni and others interested in development of textile, engineering, agricultural and dairying activities at the college. Each group is raising funds in its particular field for the purpose of securing additional equipment for the four school departments, as well as providing supplements to state teaching salaries which make it possible to secure outstanding educators from industry and educational institutions. The North Carolina Textile Foundation, Inc., was organized two years ago, and up to the present time has secured contributions amounting to \$691,000. Its president is W. J. Carter of Greensboro, N. C., head of Carter Fabrics Corp. The success of this group is credited with inspiring the organization of the other three foundations.

Dr. C. H. Greenewalt has been appointed an assistant director of the development department of E. I. du Pont de Nemours & Co. He will be in charge of activities in which technical considerations predominate, while H. E. Ford, now an assistant director of the department, will be in charge of the more commercial type of activities of the department. He entered the service of the

—(Continued on Page 42)

Houghton Wool Tops

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SUITABLE FOR BLENDS WITH RAYON OR COTTON

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• SEYCO size films are more pliable and elastic, resulting in better weaving. Try SEYCO and see for yourself.

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SOFTENERS ... SHUTTLE DRESSING
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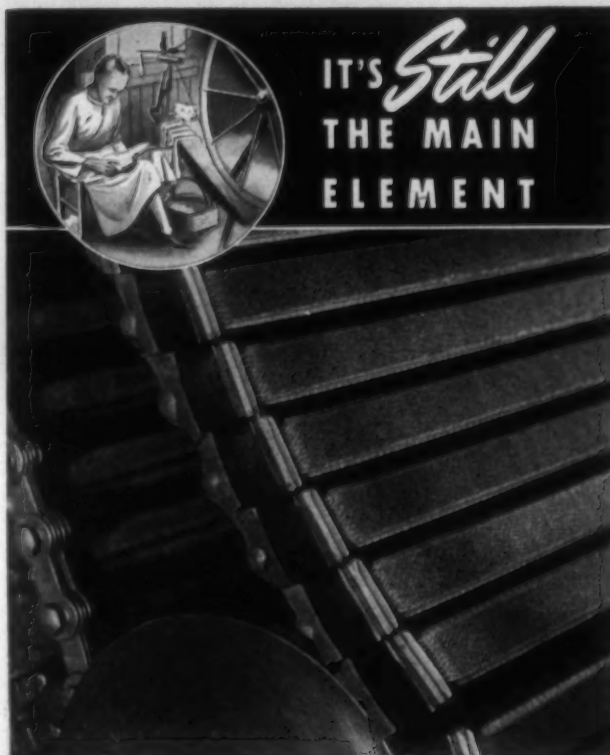
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STARCHES

*** **FOR ALL**
TEXTILE USES

- ★ QUALITY
- ★ UNIFORMITY
- ★ SERVICE

CLINTON COMPANY
CLINTON, IOWA



IT'S *Still*
THE MAIN
ELEMENT

IN the infancy of the textile industry, carding was done by hand and the card clothing was the main machine element, being an integral part of the whole.

Today the card is a separate machine — far bigger and far more costly than its clothing — and for this reason, the latter is often regarded as accessory equipment. However, in terms of results, the clothing is *still* the main element, for without it the machine is useless.

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PRODUCTS AND SERVICES: Card Clothing for Cotton, Wool, Worsted, Silk, Rayon and Asbestos Cards and for all types of Napping Machinery. Brusher Clothing and Card Clothing for Special Purposes. Lickerin Wire and Garnet Wire. Sole Distributors for Platt's Metallic Wire. Lickerins and Top Flats Reclothed.

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textile bulletin

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A Labor Representative

Chairman M. T. Van Hecke of the Fourth Regional War Labor Board announces that Paul L. Styles has been appointed regional director with headquarters in Atlanta.

Mr. Van Hecke knows that Paul L. Styles, a former textile worker, was for many years an active union organizer and that he cannot be considered as having an open mind.

Although Styles' record was well known and he could not in any spirit of fairness have been permitted to become a member of a Regional War Labor Board other than as a representative of labor, he was appointed to the board on Sept. 1, 1943, as a representative of the public, thereby giving labor four members to two for the public and three for industry.

Had the president of a textile mill been appointed as a public member of the board, a terrific protest would have been made by organized labor, but a union organizer is named to a position where he must rule upon problems between labor and the mills, and persons who are in position to prevent such an injustice made no protest whatever.

It is now announced that the Fourth Regional War Labor Board is to begin a study of its 50-cent approvable wage policy as the result of recent action of the National War Labor Board making effective its 55-cent minimum wage order in a dispute case involving 23 Southern textile mills, and we wonder why under the circumstances it is called "a study."

It would be just as fair, and just as appropriate, to permit the president of the Southern Railway to de-

cide the dispute over the fairness of Southern freight rates.

In the meantime the CIO, to which Paul B. Styles did belong, and to which we assume he still belongs and for whom he pulled strikes at Huntsville, Ala., Knoxville, Tenn., and other points, has released its members from an alleged "no-strike pledge" and has instructed them to take strike votes as an additional influence, if any is needed, to force the Fourth Regional War Labor Board to yield to their demands.

Although the CIO announces its intention of shutting down textile mills and disrupting war production unless its demands are met, they use as one of their arguments for the wage increase that it will increase production.

They are, however, fully aware that following each wage increase, up to the present, there has been a reduction in the production of textile goods, due, to a considerable extent, to employees working less days per week.

In days past it has been considered morally wrong to cheat or to seek to take an unfair advantage of any opponent, but these seem to be different days.

The Throne of King Cotton

Every person who has been identified with the South has an affection for cotton and wishes to see King Cotton retain his position, but there are times when it must be realized that the end of a reign has come and that there must be a reduction or transition from an exalted to an inferior position.

Many recall the early days of the automobile and the desperate fight of manufacturers of buggies to retain their position but will also recall that it availed them nothing.

Synthetic fibers have come and are here to stay and no matter how hard the friends of cotton may fight, it must take a secondary position and the South must realize that it will soon be impossible to sell more than 7,000,000 to 8,000,000 bales.

In 1887 Henry Grady, one of the South's great orators, speaking at Dallas, Tex., stated that in three years the American cotton crop had increased 1,400,000 bales, and added:

And yet there is less cotton in the world today than at any time for 20 years. The dominion of our king is established; this princely revenue assured, not for a year, but for all time. It is the heritage that God gave us when He arched our skies, established our mountains, girt us about with the oceans, tempered the sunshine, and measured the rains—ours and our children's forever. . . .

Mr. Grady in the same address warned against dependence on one money crop. He said "if the cotton monopoly makes other crops impossible its dominion would be despotism," adding:

When every farmer in the South shall eat bread from his own fields and meat from his own pastures, and disturbed

by no creditor, and enslaved by no debts, shall sit amid his teeming gardens, and orchards, and vineyards, and dairies, and barnyards, pitching his crops in his own wisdom, and growing them in independence, making cotton his clear surplus, and selling it into his own time, and in his chosen market, and not at a master's bidding—getting his pay in cash and not in a receipted mortgage and discharge his debt, but does not restore his freedom—there shall be breaking the fullness of our day.

Many remedies for the distress of King Cotton are being offered and quite a few of the doctors seek to relieve their own distress by setting up organizations which will pay them substantial salaries while working for the extension of the reign of King Cotton.

It is but natural that first thoughts go toward research but most suggestions have mythical objectives and there have been very few practical suggestions.

Research intended to improve the lot of cotton can go in only two directions:

- (1) *To seek a lower cost of cotton and cotton goods through bulk production.*

No matter how much the cost of the production of cotton or cotton goods may be reduced, it will still not be low enough to compete with either paper or free trade jute.

- (2) *By improving the quality and appearance of cotton yarns or goods.*

No matter what steps may be taken to improve the appearance of cotton yarns or goods, the product will still not have the appearance of rayon, nylon or other synthetic fibers, nor will it be possible to make blends of cotton to compete with the multitude of blends of synthetic fibers.

Cotton is held tightly in a vise. The lower jaw is composed of paper and jute while the upper jaw is composed of many types of synthetic fibers, most of them being constantly improved in quality.

While King Cotton is facing a fight to continue his rule, many of his friends are adding to his troubles and hastening his exit by means of parity prices, subsidies, loans, etc.

The politicians are seeking to win favor among cotton farmers by proposing many quack ideas, all of them at the expense of the government and some actually at the expense of the farmers.

Right now two nations are paying export subsidies, the United States on cotton and Brazil on cotton and coffee. It is not strange then that the State and Agriculture Departments are pressing for a United Nations' meeting to arrive at agreements, presumably to set limits on amount of cotton a nation might export.

No research program, parity price, subsidy or loan can counteract the time-honored law of supply and demand.

The world has found new fibers which can be used in the place of cotton and which can be blended and treated so as to make fabrics more beautiful than those made of cotton.

The cotton farmers have the satisfaction of knowing that for certain purposes and certain fabrics, cotton will always be used and that they can probably raise and sell 7,000,000 to 8,000,000 bales, but they should also realize that none of their alleged friends can long enable them to continue to produce and sell 14,000,000-bale crops.

The reign of beloved King Cotton is over and he has no choice other than to take a secondary position.

Rayon, nylon, aralac and other synthetic fibers, including some which have not emerged from the tubes of the chemists, will take seats in the front row.

Lincoln Statement

In our editorial of March 1 entitled "Lincoln Maligned" we quoted from an address made by Abraham Lincoln on Sept. 18, 1859.

The position of Lincoln, upon social equality between whites and Negroes, was apparently unknown to many people and we have received letters asking where his statement could be found.

The statement was made at Charleston, Ill., on Sept. 18, 1858, during the fourth joint debate between Lincoln and Stephen A. Douglas.

Many publications contain the addresses of Abraham Lincoln but those who have "Works of Abraham Lincoln," by the University Society of New York, or can find it in a public library, will find the address to which we made reference on pages 287, 288 and 289 of Volume III.

The Typographical Error

We do our dead level best to keep out as many errors as we can and we are not offering any alibi for the errors that we make. Anyone, though, who has ever been responsible for publishing a periodical can appreciate the following:

The typographical error is a slippery thing and sly.

You can hunt till you are dizzy, but it somehow will get by.

Till the forms are off the presses it is strange how still it keeps;

It shrinks down into a corner and it never stirs or peeps,

The typographical error, too small for human eyes,

Till the ink is on the paper, when it grows to mountain size.

The boss he stares with horror, then he grabs his hair and groans;

The copy reader drops his head upon his hands and moans—

The remainder of the issue may be clean as clean can be;

But that typographical error is the only thing you see.

—From *Avondale Sun*.

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Write "FC-2," care Textile Bulletin.

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Man to take charge of quality testing laboratory; experience with cotton and synthetic textiles desirable. Work will include physical and chemical analysis in relation to research and development and promotional activities of National service organization. Location, Dallas, Tex. Write including education, experience, and expected salary range.

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Address "Technician,"
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Superintendent for Yarn Plant located in Western North Carolina. State age, experience, and references in first letter.

Write "Box D-35,"
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Cotton Spinning Mill with around 10,000 spindles in running condition, eventually with weaving.

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WANTED—Job as Overseer of Brownell Twisting or Spinning. Experienced. Large family. Address "Brownell Twisting," care Textile Bulletin.

WANTED—Position as Spinner or Carder and Spinner; long experience in both; strictly sober; good habits; married, large family. Can come on short notice; will go anywhere. Write "H-P," care Textile Bulletin.

POSITION WANTED—As assistant superintendent or General Overseer of Weaving; now employed as Overseer Weaving but want to make change for personal reasons. Experienced on all kinds of blends of rayon goods and filament rayon goods. C & K. Box and Dobby Looms and X and XK Model D Stafford and XL and XD, fancy goods or plain. 30 years' experience in mill and 10 years as overseer weaving and slashing and superintendent of weaving. References. Write "Box X-30," care Textile Bulletin.

WANTED—Position as Superintendent of small yarn mill; experienced; can furnish good references. Write "Box 2-4," care Textile Bulletin.

WANTED—To make connection with a reputable mill as assistant superintendent or general overseer of weaving. Five years' experience as overseer weaving; two years as overseer cloth room. Have completed every unit of study connected with weaving, both plain and fancy, including designing. Experienced on C. & S. box looms and Draper, weaving plain and fancy cotton; also rayons, both spun and filaments. Some practical experience slashing. 38 years of age. Good references. Now employed but desire to become associated with a good concern where there will be adequate chances of advancement upon proven merit. Address "G-W," care Textile Bulletin.

WANTED—Position as Overseer of Card Room, or Assistant Overseer Card Room on first or second shift. Prefer North Carolina. 25 years' experience as assistant and overseer card room. 51 years of age; good manager of help. References. Address "D. L.," care Textile Bulletin.

NO POST-WAR SLUMP FOR YOU, BROTHER!

Export to Australia!

Active young man, 28, vocational training at Textile Engineering Dept. of Superior Textile Technical College, Chemnitz (Germany, seeks representation in Australia of American manufacturers of textile products, machinery, or chemicals used in the textile trade.

Reply "Australexport," care Textile Bulletin.

WANTED

Overseer of Weaving, large Southern cotton mill.

Address "Weaver," care Textile Bulletin.

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Well known in the textile trade, wants representation or agency for manufacturer desiring sales in Georgia.

Write "Box L-27," care Textile Bulletin.

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Excellent opportunity with immediate possibilities, with textile firm engaged in essential production. Give complete outline concerning self in first letter. All replies confidential.

Address "A-C," care Textile Bulletin.

WANTED

Assistant Overseer of Carding Department in large Alabama mill. Oversight pickers through slubbers.

Write "M-28," care Textile Bulletin.

WANTED

Superintendent for Alabama mill manufacturing twines and yarns; preferably having close experience with production planning and control. Write, giving experience, availability and salary, to

"Box S-27," care Textile Bulletin.

WANTED

Personnel Director for four Textile Plants. Man with experience preferred. State age, experience, references, and salary desired in first letter.

Write "Personnel," care Textile Bulletin.

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● Firms having textile mill equipment for sale also find Textile Bulletin classified advertisements valuable in establishing business contacts.

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294 WASHINGTON STREET, BOSTON 8, MASS.

PERSONALS

(Continued from Page 36)—

Du Pont Co. in 1922, starting as a chemist in the Philadelphia Works. Two years later he was transferred to the experimental station of the chemical department in Wilmington. He was made a group leader of research chemists in 1927, a research supervisor in charge of a number of groups in 1933, and assistant director of the experimental station in 1939. During this period, he played an important part in the development of nylon. In January, 1942, Dr. Greenwalt was elected a director of the company, and in June of that year he became chemical director of the Grasselli chemicals department, and went from there to the explosives department as technical director in 1943.

L. C. Finley is now superintendent of Hannah Pickett Mills at Rockingham, N. C.

Ralph E. Loper, textile engineer of Fall River, Mass., will go to China soon to organize the textile section of the Chinese War Production Board. His task will be to assist in equipping the present Chinese army and establish a unified textile manufacturing industry in that country.

Ralph Estes has resigned as overseer of warp spinning for Consolidated Textile Corp. at Lynchburg, Va., and has been super-

WITH THE MILITARY — E. Hester Warren, a card room overseer for Cannon Mills Co. at Knapolis, N. C., before entering the Army Air Forces, has been promoted to the rank of lieutenant-colonel. Colonel Warren joined the Cannon organization in 1937 upon graduation from North Carolina State College. Since being called into the Air Corps in 1940 he has advanced from a second lieutenant to his present rank. He is now serving with the Ninth Tactical Air Command in Europe. . . . Capt. E. A. Terrell, Jr., son of the president of Terrell Machine Co. at Charlotte, is serving as a company commander with the Army's Ninth Armored Division, which established the Remagen bridgehead across the Rhine River in Germany. . . . Ray Nordheim, on leave from Cone Export & Commission Co., New York, has been commissioned a second lieutenant following graduation from officer candidate school at Camp Lee, Va. He entered the Army in 1941 and has seen service in Africa with the paratroops.

WITH THE GOVERNMENT—Norman C. Billard has been appointed chief of the orders and regulations section of the cotton and synthetic textiles division in the War Production Board's textile, clothing and leather bureau. He was sales and merchandising manager for Saratoga Victory Mills, Inc., before its sale in 1944. . . . James H. Eddy is now acting director of the WPB management consultant division. He replaces John W. Nickerson, who resigned last month. . . . Frank Walton has joined the Army's Office of the Quartermaster General in Washington as a consultant. . . . P. Thomas, president of Hadley Mfg. Co. at Siler City, N. C., has been appointed a consultant to WPB's cotton yarn branch. . . . Walter Montgomery, executive of Spartanburg, S. C., has been named by the War Department as one of a group of experts going to France soon to assist French plants in returning to war production. . . . Martin H. Horchler has been named as chief of WPB's wool branch. His successor has been named.

John Daly is now superintendent of the Beacon Mfg. Co. plant at Winder, Ga.

W. G. Morgan has become superintendent of the Payne Mill of Bibb Mfg. Co., Macon, Ga.

A. H. Vann has retired as treasurer of Sterling Cotton Mills, Inc., at Franklinton, N. C.

Hyster "20" Useful In Textile Operations

Extensive textile plant uses for the Hyster "20" lift truck are claimed by its manufacturer, the Hyster Co., of Portland, Ore., and Peoria, Ill. This



truck, shown transporting 500-pound bales of cotton in the accompanying illustration, may be used for unloading

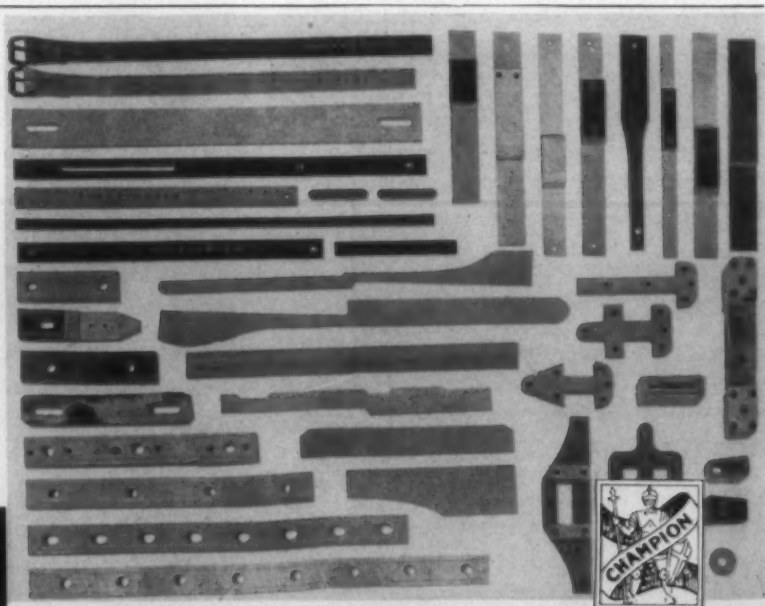
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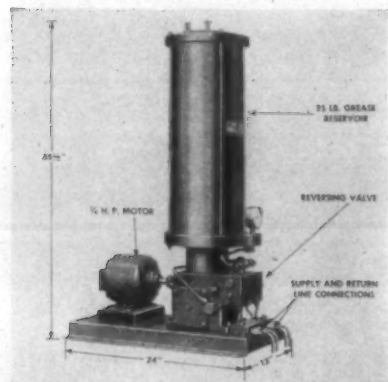
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raw materials, transporting both inside and outside the mill, stacking, storing and loading finished products. The Hyster "20" is gasoline powered and has a capacity of 2,000 pounds. Its traveling speed is 12 miles per hour and is equipped with pneumatic tires which facilitate movement over rough and uneven surfaces as well as up and down ramps.

New Automatic Pumping Unit Now Available

Recently announced by the Farval Corp., Cleveland, Ohio, is the Automatic Central Pumping Unit DC-25. This is a small size, double plunger, slide valve type of pumping unit which provides a positive high pressure pump for the handling of all types of lubricants without the use of springs, check valves or stuffing boxes. The complete



system will handle either oil or grease and requires no attention except the renewal of the lubricant supply in the reservoir.

Similar to the larger Farval heavy duty units, the DC-25 central pumping unit delivers lubricant under pressure to all bearings in the system through two main supply lines serving a Farval Dauline measuring valve at each bearing. Frequency of operation is controlled by an electric time clock. A suitable signal device is available to indicate any interruption to the normal operation of the system. For individual machine lubrication, this central pumping unit can also be furnished with rotary drive and with hydraulic timing. With this arrangement, the unit will start and stop with the equipment served. Operation of the Farval double plunger pump is explained and illustrated diagrammatically in Farval Bulletin No. 40, available on request from the manufacturer at 3249 East 80th Street, Cleveland.



High grade gas, by-product and steam coal from Wise County, Va., on the Interstate Railroad.



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Genuine New River Smokeless, Beckley or Sewell seam from Raleigh County, W. Va., C. & O. and Virginian Railroads.



Hazard No. 4 and No. 7 steam and domestic coal from Wisconsin, Knott County, Kentucky, on the L. & N. Railroad.

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Unexcelled Steaming Coal from the Fire Creek Seam in Greenbrier County, W. Va., originating on the N.F.&G.R.R.



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Send for samples

Dixon Lubricating Saddle Co., Bristol, R. I.

Cotton Goods Market

The War Production Board has issued Direction 11 to General Conservation Order M-317 requiring major conversions of production facilities in the combed cotton goods industry.

The direction requires that, commencing April 2, combed yarn fabric mills must reserve at least 50 per cent of their poundage production of combed sliver for making yarns suitable for required military fabrics. All twister spindles in combed yarn fabric mills must, effective April 16, be operated to produce only ply combed yarns suitable for the military fabrics called for in the specifications set forth in Schedule A of the direction. Each combed yarn fabric mill must produce at least as many yards of each of the fabrics as that mill produced in the fourth quarter of 1944. Furthermore, looms producing the required fabrics as of the effective date of the direction are frozen to those fabrics.

Quietness in all sections of the New York cotton gray goods market reflects the acute shortages of available merchandise. In addition, mills continue to confine sales to nearby deliveries, extending their position only in rare instances involving vitally important military requirements. Probabilities that a wage increase may be granted to cotton mill workers has prompted many selling houses to follow a cautious policy on forward selling.

A marked hesitancy to accept any new contracts is evinced in these quarters, and merchants complain that they must not approach any new business from too many different angles. Either goods are under directive, needed for "must" military programs, fall in special categories of distribution, and numerous other reasons are cited for the reluctance to go ahead and accept new orders.

Worth Street market operations have been in a state of confusion as a result of the many-sided interpretations to government regulations. Principal uncertainty was caused by speculation as to the effects of M-388 on gray goods selling, with many taking the view that will seriously hinder future movements. Reports that the AA-4 priority rating in M-388 would become extendible back to the mills were viewed with concern, although many doubted that such a revision would be incorporated in the regulation. Even WPB officials are said to be unaware of such a change.

The fact that mills hereafter must sell their entire output to holders of priority ratings or else to holders of WPB serial numbers under M-388 was viewed as already placing heavy restrictions upon selling operations. Should the AA-4 rating become effective at the mill level, the thought is widely expressed that distribution will be greatly distorted and result in serious harm to many users of cotton goods not covered by M-388.

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fabrics for diversified uses

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EMPIRE STATE BUILDING

NEW YORK

Cotton Yarns Market

As the first quarter draws to a close sales yarn interests in Philadelphia are glumly perusing figures which show that production in the quarter is below that of the previous quarter, and is likely to dip still further in the second quarter.

The holidays at the end of the month will cut deeper into production, and, although production is estimated to be about three per cent under the last quarter of 1944, it is predicted that it will be near the minus ten per cent mark when the quarter ends.

The Census Bureau has reported that cotton lint consumed during February totaled 781,559 bales, compared with 849,945 bales in January this year and 811,062 in February, 1944. Consumption for the seven months ended Feb. 28 totaled 5,658,740 bales of lint, compared with 5,902,178 in the corresponding period a year previously.

Cotton yarn men in New York state that the WPB plan to convert 50 per cent of the spun rayon spindles to cotton yarns will be found impractical by many rayon mills. The only type of cotton yarn that some rayon plants will be able to produce will be the carded counts because they do not possess the combing machinery necessary to make combed yarns, it is said. This inability by several plants to convert will defeat, in part, the purpose of the plan, as the types of waterproof cloths and uniform fabrics needed by the Army and Navy must be made with combed yarns. Cotton yarn mills which for greater profit switched over to spun rayon many months ago planned to make this change a permanent one, and consequently got rid of most of their preparatory machinery. Now these mills will find it difficult to round up equipment and switch back to cotton yarns, sellers say.

Sales yarn distributors, thinking of priority orders which must be filled, have been concerned with the result of the strike vote by Southern textile union locals. Some 100,000 workers are involved and a shutdown in the South's mills would drastically cripple procurement of all textiles.

Point at issue is the War Labor Board directive raising wages of the workers. Delay in putting the increases in effect is the cause of the strike threat. When the prevailing prices were set it was the converters who had to absorb the increases. Now the shoe is on the other foot, spokesmen in Philadelphia say, and although they sympathize with the mills, there does not seem to be anything that can be done about lessening their increased financial costs unless OPA acts.

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High-Tenacity Rayon Manufacturers May Request Higher Ceilings

Manufacturers of high-tenacity rayon yarn are now permitted by the Office of Price Administration to apply for ceiling price increases covering the higher cost of producing this yarn with converted or newly constructed equipment.

The amendment, effective March 22, 1945, applies only to manufacturers operating under War Production Board directions and provides for an adjusted price equal to the average cost of the applicant's production on converted or newly constructed equipment. It replaces a former amendment which covered only 1,100 denier high-tenacity rayon yarn and permitted price increases only where the ceiling price failed to meet the total average cost of all the applicant's production of that yarn.

The action was taken so that manufacturers could continue to produce without financial loss, OPA said. The latest WPB program calls for production of 296,000,000 pounds of high-tenacity rayon yarn a year, as compared with the 1941 output of 23,000,000 pounds. The five producers subject to WPB direction gradually have converted their

facilities and now are making two-thirds of their high-tenacity yarn on converted equipment. Because these facilities are not well adapted to high-tenacity yarn, and because conversion itself is expensive, the higher cost of operation in some cases has eliminated all profit on the yarn. Yarn produced with newly constructed equipment is included in the adjusted price provision because of the possibility that the equipment's useful life may be shorter than normal, cutting down the time available to the manufacturer for paying it off.

Heavier Rayon Cord Used in Tires

A new development in tire construction—the use of heavier rayon cord—is making possible the production of thousands of additional military tires at a time when they are needed to help overcome a critical shortage, the Firestone Tire and Rubber Co. reports. Tires built with fabric made from the heavier cord are stronger, although they contain approximately 25 per cent fewer plies. This reduction in plies has speeded production by cutting the time required to build tires; the time saving varies with the different sizes but is substantial in all cases.

The development was announced during the second month of the rubber industry's 120-day drive to whip the military tire shortage which became acute as the crescendo of battle increased on all fronts. The goal of the campaign is 21,000 extra tires a day during the four-month period, and the new process is expected to be an important factor in helping deliver the extra production.

Employment Is Theme of Booklet

The question of whether the United States will have full employment or unemployment after the war is posed by a booklet, "Production Management, and How It Affects Productivity, Costs and Employment," recently issued by Albert Ramond & Associates, industrial engineers. Procedures and policies helpful in the attainment of low prices and high incomes, based on experience in over 1,000 plants, are outlined in the 40-page booklet, which includes 12 pages of pictorial diagrams and charts. Sections are devoted to work measurement, method improvement, labor cost and expense control, production control, job evaluation, incentive wage plans for production workers, indirect workers and supervisors, and labor's attitude toward increased productive efficiency.

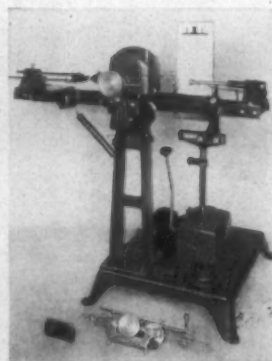
Restricted A.C.M.A. Meeting Is April 25

The American Cotton Manufacturers Association will hold its annual meeting April 25 at Atlanta, Ga., with attendance limited to 50 persons in compliance with Office of Defense Transportation rules. In normal times the convention is attended by from 350 to 500 persons connected with the textile industry. No announcement has been made as to what procedure will be used in selecting those A.C.M.A. members who will gather at Atlanta.

Due to the shortage of seersucker cloth and increased requirements caused by the stepped-up Army nurse and WAC medical technician recruiting program, the Office of the Quartermaster General has been authorized by the Surgeon General's Office to manufacture shirts and slacks for nurses and WACs from plisse cloth.

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Dan River Stockholders Told of Mill's Progress in Research

New textile dyeing processes, and recent developments in the use of synthetic resins and other bonding agents in the treatment of yarns and fabrics, were reviewed March 9 by the research division of Riverside & Dan River Cotton Mills, Inc., following the annual meeting of stockholders at Danville, Va. Also made public at the same time was a brief review of the work of the research division and a detailed digest of the textile patents now held by the company, and of a number of applications for patents now pending. The commercial applications of these new processes are described in some detail.

Several of the new processes are in regular production, particularly a process for rapid and continuous vat dyeing by which more than 100,000,000 yards of cloth have already been dyed, much of it to rigid government specifications. A method of "union dyeing" that permits the simultaneous and uniform dyeing of acetate and cellulose rayon mixtures was announced as a development of particular interest and importance. Another dyeing method which yields fast colors and resin protective treatments in the same operation is referred to as the basic process and the first in conception and development in the comparatively new art of pigment dyeing.

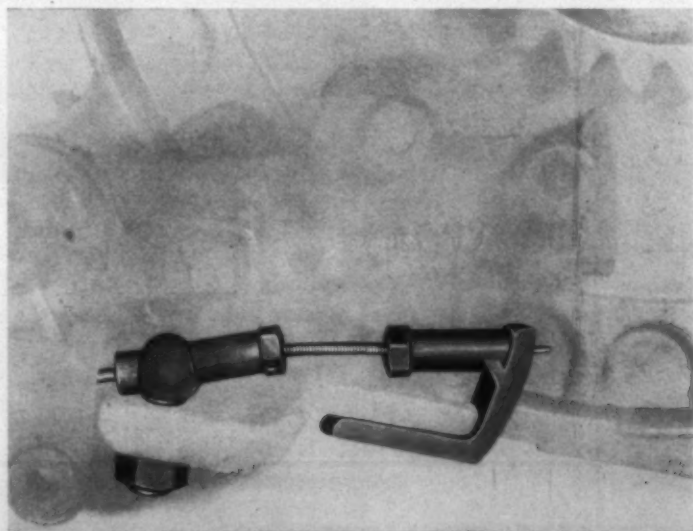
This review of Dan River research reveals that these developments in textile manufacturing are the direct results of a planned program of research carried out in a series of fully equipped laboratories, and directed by a staff of chemists and physicists especially trained in scientific textile practice. Exhibits of various end products of these new processes

and of the advertising and promotional programs of the company were viewed by stockholders at the conclusion of their annual meeting.

Nation's 1944 Fiber Consumption Shows Drop From Previous Year

Consumption of textile fibers in the United States during 1944 aggregated 6,109,600,000 pounds, a drop of 6.6 per cent compared with consumption of 6,542,500,000 pounds reported for 1943, states *Rayon Organon*, published by the Textile Economics Bureau, Inc. Of the 1944 total poundage, 78.3 per cent was cotton, 11.5 per cent was rayon and 10.2 per cent was wool. Silk consumption was nominal. Rayon was the only fiber showing a higher consumption last year than the previous year, having increased by seven per cent from 656,200,000 pounds in 1943 to 704,700,000 pounds in 1944. Cotton took a substantial drop of nine per cent from 5,258,300,000 pounds in 1943 to 4,781,200,000 last year, while wool declined by one per cent from 628,000,000 pounds to 623,700,000 pounds.

Shipments of rayon filament yarn by domestic mills totaled 45,700,000 pounds in February as against 47,800,000 pounds in January and 43,300,000 pounds in February, 1944. Stocks in producers' hands totaled 6,600,000 pounds Feb. 28, against 8,400,000 pounds held as of Jan. 31, 1945. Rayon staple fiber shipments last month totaled 12,800,000 pounds as against 14,400,000 pounds delivered in January and 13,600,000 pounds shipped in February, 1944. Staple fiber stocks at the end of February aggregated 3,200,000 pounds as against 3,100,000 pounds held at the close of January.



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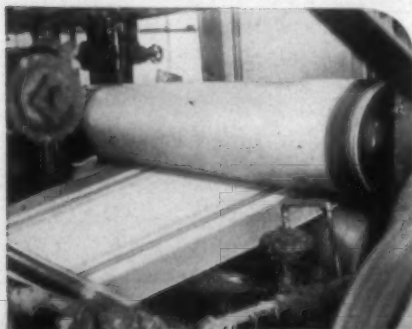
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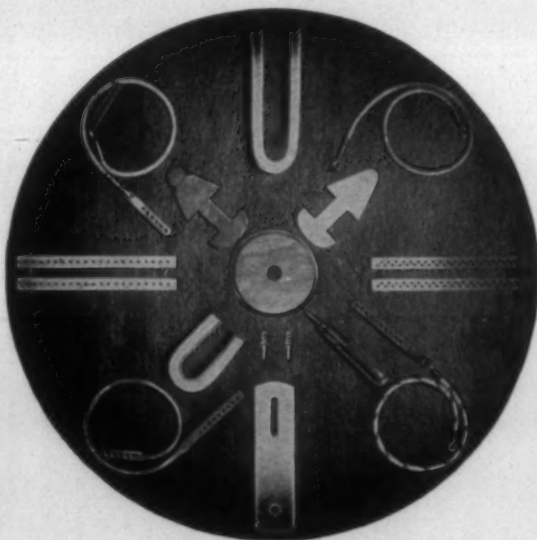


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**Supply of Cotton for Non-War Uses
Less in Second Quarter**

Because of further increases in military requirements for cotton fabrics and a prospective dip in production, the supply of these textiles available for domestic non-military and export uses during the second quarter of 1945 will be somewhat smaller than in the current three-month period, the War Production Board's cotton and synthetic textiles division has announced.

In releasing the figures on second-quarter allocations to the various claimant agencies, the division explained that stated requirements in the aggregate are nearly 75,000,000 yards higher than for the first quarter, while estimated production is nearly 40,000,000 yards lower. Consequently, the disparity between stated and adjusted requirements is now 36 per cent, compared with 31 per cent for the first quarter and 25 per cent for the year 1944. The following tabulation shows second-quarter allotments to claimant agencies:

COTTON BROAD WOVEN FABRICS (EXCEPT TIRE CORD FABRICS)
(Thousand linear yards)

	Second Quarter 1945
Estimated supply	2,409,897
Allotments	
Military, total	659,518
Domestic, non-military, total	1,561,992
Office of Civilian Requirements	1,116,556
War Food Administration	281,558
Rubber and other industrial	163,878
Export, total	188,387
Foreign Economic Administration	106,599
Canada	49,674
Liberated areas	24,430
Red Cross	7,684
Grand total	2,409,897

Increased military needs—especially for heavy combed yarn fabrics—have made more acute the problem of extending inadequate supplies of cotton goods to cover the most essential uses, WPB reported. Another fact that makes more apparent the disparity between estimated production and stated requirements, WPB officials added, is the impact of recent loom conversions to cotton duck substitutes. This change-over will be fully felt during the second quarter.

Increased allocation of cotton duck and duck substitutes and expanded requirements of cotton tire cord fabrics will inevitably impose a heavier drain on supplies of coarse yarns available for other programs, WPB explained. The most seriously affected areas in the domestic civilian economy are combed fabrics, drills and twills, denims and towels. Heavy work clothing fabrics represented by drills, twills and denims will be in short supply, although measures are under consideration to relieve this situation.

Plans are being drawn up to establish specific implementation procedures for cotton fabric allotments to the War Food Administration for the bagging industry and to other industrial and commercial users. According to WPB officials, abandonment of the use of self-assigned ratings in these fields would tend to bring about a more equitable distribution of cloth among these classes of purchasers and prevent cloth diversion through rating misuses.

Although second-quarter supplies of lighter weight cotton apparel fabrics will be far from adequate, they are believed sufficient to maintain our civilian economy at around the current level, WPB said. Medical and health supplies will

continue at a level practically equal to stated requirements. Supplies of fabrics for house furnishings are the most severely affected of all groups, according to WPB. Meantime, cotton, rayon and wool fabrics available for civilian garments will be channeled into the most essential end uses by the controls in Order M-388, which in conjunction with OPA's maximum average price plan, is expected to effect a decrease in retail prices of six to seven per cent during the next six months.

Patents Disclose Developments of Interest To Textile Field

(Continued from Page 26)—ess has been worked out in a practical way on certain types of weaves and in a certain range of colors.

"It is planned not to divulge the process or its state of development until a full range of shades as well as a wide range of weaves has been produced in practical runs. At the moment it is impossible to estimate when the work will be completed.

"When announced, it is intended to make the process available through a nominal licensing arrangement to any concerns interested in producing goods in accordance with this discovery, to whom will be furnished the necessary technical assistance for installation and production of the process.

"This process will not be confined to fabrics containing Eastman acetate rayons but will be available for any acetate fabric because Eastman feels that through its wide application, the superior fastness qualities of vat dyes will broaden the field for acetate rayon."

Dr. Smith's disclosure of the new process came at the end of his talk in which he discussed present dyeing methods and some recent developments. He emphasized the importance of the selection of dyestuffs for acetate rayon at the present time. "The blue azo dyestuffs available at the present time may be satisfactorily applied to many fabric constructions with excellent fume fastness and with light fastness sufficient for certain end uses," he pointed out.

"There are a few anthraquinone dyestuffs available now which, with suitable dyeing and finishing technique, will give satisfactory resistance to both fume and light fading for many end uses where both are important." He stressed that acetate dyes should be selected with respect to the end use of the fabrics regarding the relative importance of light fastness and fume fastness.

Of regenerated cellulose fibers Dr. Smith said that "to produce rayon fabrics with guaranteed fast colors, it is necessary to use a carefully selected group of vat and azoic dyestuffs. The application of these dyestuffs calls for skill in the mechanics as well as in the chemistry of dyeing. It is in the field of mechanical handling that many interesting and successful new ideas have been applied to the problem of vat dyeing." The speaker listed these developments as pigment pad-jig, modified pigment pad-jig or reel, pigment pad-steam, reduction-continuous process, pigment pad-modified jig and leuco esters of vat color.

A textile finishing material has been patented by Alfred Rummelsburg, Wilmington, Del., and assigned to Hercules Powder Co. The patent covers a textile fabric finishing composition comprising as a binding agent starch modified with a polymerized terpene hydrocarbon resin. The patent number is 2,368,782. Four claims are allowed.

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Monsanto Chemist Fears Effect of Draft On Scientific Progress

The man who gave America its first synthetic tires told his fellow scientists March 5 that America is creating a scientific vacuum, and hence is endangering its security, by depleting its available supply of technically trained men. He is Dr. Lucas P. Kyrides, organic research director of Monsanto Chemical Co. In accepting the first Midwest Award of the St. Louis section of the American Chemical Society for "meritorious contribution to the advancement of chemistry," Dr. Kyrides expressed grave concern over the country's wartime policy of drafting young scientists.

The award dinner at St. Louis was the first public mark of recognition ever accorded Dr. Kyrides, who has nearly 100 patents to his credit, including those for the first workable processes for isoprene and butadiene. "By continued drafting of young scientists and by arresting the development of our scientific replacements," said Dr. Kyrides, "we are—in my opinion—setting the stage for a scientific vacuum that will face the nation after this war. Consider the possibility of the war ending tomorrow. It would be six to ten years before there would be a graduating class of Ph.Ds."

He pointed out that England, having pursued the same course in World War I, is not now making the same mistake twice. "She is not drafting her scientific personnel," he continued. "To the contrary, she is rendering every encouragement to science with the specific purpose of insuring adequate post-war replacements. Even in the darkest days of Stalingrad, Russian manpower requirements never reached the stage where Russia felt it necessary to call on her scientific men to bear arms. This leads inevitably to speculation on what we in America will face after the war in competition with other progressive nations—nations which will be adequately equipped with trained scientific replacements. Let us not assume that we can maintain our leadership without continuing to conserve and train scientists. It cannot be done."

In his address, entitled "The Chemist and the Millennium of Well-Being," Dr. Kyrides briefed the development of organic chemistry from its beginnings, told of his pioneering work in synthetic rubber substitutes and discussed his research studies into dyes, medicinals and industrial chemicals.

"Soon after the declaration of the first World War it became apparent that in order to maintain the industries which were dependent on synthetic chemicals the country would have to become independent of Europe. As the demand for synthetic chemicals increased, even those who had a nodding acquaintance with organic chemistry grasped the situation. Tall tales were in circulation of fortunes made in backyard sheds. Rhodamine, a brilliant red dye, had skyrocketed at one time to \$180 a pound and was unobtainable even at that price. Malachite green, a comparatively easy dye to manufacture, was selling at many times the pre-war price despite its extremely poor quality. Even workmen in these plants derived considerable revenue by stealth and sale of the products. This situation was bad even as late as 1918, and it was not until the large industrial concerns had established their manufacturing processes that some order came out of the chaotic conditions.

"The dyestuff industry claimed the greatest attention of synthetic organic research, which meant that most of the effort was concentrated on processes for pure intermediates.

Some experience had been gained in the pre-war operation of a few azo and sulfur dyes. These dyes being dull and cheap were found to suit the war needs most admirably.

"In the meantime as the production of aniline was stepped-up to attain the rate of 24,000,000 pounds a year by 1918, expansion into the more profitable and brighter dyes became urgent. Indigo, of which 8,500,000 pounds had been imported in 1914, depended on aniline as one of its raw materials. Indigo appeared on the market in 1917 and the following year its production rose to 3,000,000 pounds. It should be noted that progress in the manufacture became so pronounced that in a few years American indigo displaced the foreign material to a large extent in the Orient. The triphenyl methane dyes, being more complicated, took time to develop. These dyes, although evanescent, are still the brightest known and are in great demand where permanence is not of consequence.

"That research improves on nature is a commonplace. The silkworm for countless generations was the manufacturer of the finest filament for textiles and until very recent times it held a unique position. Research, however, had begun to make inroads into the field and signs were multiplying that silk would be dethroned to make room for the handiwork of man. Progress in improving the characteristics of the synthetic filaments has revolutionized our attitude toward synthetics and ushered in a new era. Some of these fibers have physical properties superior to any obtainable in nature. It is predicted that soon after the termination of the present war, one of these fibers will supply a half-billion pairs of ladies' hosiery. Fibers made from glass may be used extensively in specialty products where non-flammability is desired. There is no end to the utility of the products or by-products of research, but given time, future generations will look at the contributions of our age as puny compared with theirs."

Picker Stick Blank Ceilings Established

Establishment of mill ceiling prices of \$102 to \$278 per 1,000 pieces of hickory picker stick blanks has been announced by the Office of Price Administration. The new maximum prices became effective March 12, and are approximately 25 per cent above the ceilings that producers previously could charge. They were established by OPA as a companion action to a War Production Board allocation order limiting the use of these blanks to the manufacture of picker sticks.

The prices are in the form of dollar-and-cents ceilings per blank for the 27 most widely used sizes of blanks, and are the equivalent of \$250 per 1,000 board feet on a dry size board measure basis. For sizes other than the 27 for which specific ceilings are provided on a "per blank" basis, the new ceiling price is \$250 per 1,000 board feet measured on the dry size dimension. No differential in price is made between the white or red color of the wood.

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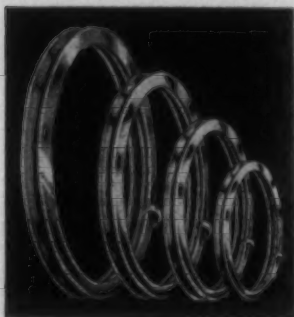
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sizing problems.
Jim

Preference Rating for Treasury's Woolens

The War Production Board has announced that contractors holding rated orders for woolen garments for the procurement division of the Treasury Department may apply for a preference rating to acquire woolen fabrics by submitting Form WPB-541 to the nearest WPB district office. Heretofore, such applications have been denied, but new applications now will be given consideration. The applications should cover only amounts needed to complete unfilled portions of such contracts and not to replace inventories.

WPB also pointed out that where a woolen mill is supplying cloth to garment manufacturers who use ratings granted them under Form WPB-541, these mills may apply the spindle hours devoted to the production of yarns to produce such woolen fabrics against their spindle hour quota assigned by the War Production Board direction dated Feb. 1, 1945, and these orders may be considered as rated orders of an agency of the Federal Government.

Flintkote Co. Acquires Additional Properties

The acquisition of new plant property, additional facilities and an important source of raw material was announced by The Flintkote Co. of New York City following the February meeting of the board of directors. First on the list to be announced was the Whippany, N. J., rubber reclaiming plant previously operated by the Manhattan Rubber Mfg. Division of Raybeston-Manhattan, Inc., which transfers to the ownership of Flintkote after approval of the New York Stock Exchange.

The Tile-Tex Co., national manufacturers and distributors of Tile-Tex floor coverings, has been secured by The Flintkote Co., pending approval of the Securities Exchange Commission and the New York Stock Exchange. A mining property in Canada near Thetford Mines, Province of Quebec, has also been acquired by a newly-organized subsidiary of The Flintkote Co., Ltd., Canada, known as Flintkote Mines, Ltd.; construction is now underway on mining and milling facilities for the production of various grades of asbestos fiber.

1944 A.A.T.C.C. Year Book Published

The 1944 Year Book of the American Association of Textile Chemists and Colorists was made available recently by the A.A.T.C.C. The 21st edition of this reference work is expected to prove invaluable to chemists, colorists and others concerned with the application of dyes and chemicals to textiles. Included are the latest standard test methods of the association, a classified list of all dyestuffs currently manufactured in the United States, a similar list of textile chemical specialties and a bibliography of articles on textile chemistry and processing published in 1943. The volume may be obtained from Howes Publishing Co., Inc., One Madison Avenue, New York 10, N. Y., for \$3.50.

American Fashions and Fabrics To Be Shown

American Fabrics and Fashions, a series of fashion showings accompanied by an interrelated exhibition, will be conducted by the Metropolitan Museum of Art in New York this spring. Previews will be held for members of the museum and the press March 20 and 21, with repeat promenades for the public and for special groups to be arranged

for early April. The exhibition which accompanies the fashion showings will remain open through May. This project signalizes the first large-scale effort at close collaboration between fashion and fabric designers, with large numbers in each field working closely together from the inception of the fabric design to the finishing costume.

Draft Deferment Plan Is Announced

A plan approved by the Office of War Mobilization governing the procedure for making the requests for deferment of a limited number of men under 30 years of age who hold key positions in war industries has been announced jointly by Maj.-Gen. Lewis B. Hershey, director of the Selective Service System, and Paul V. McNutt, chairman of the War Manpower Commission. The new procedure will permit a very limited number of all men who were classified as 2-A or 2-B on Jan. 1, 1945, to be certified to Selective Service local boards as essential on their civilian jobs. The number of men to be recommended for deferment will vary among establishments. In some, where substitute workers can be obtained by recruiting or upgrading, or where the activity is not vital to the war effort, no further recommendation for deferments will be made. The primary objective is to protect the war production lines where induction of irreplaceable men will retard the war effort, as well as men in this group whose induction would endanger public health and safety.

Industry Advisory Committees Praised

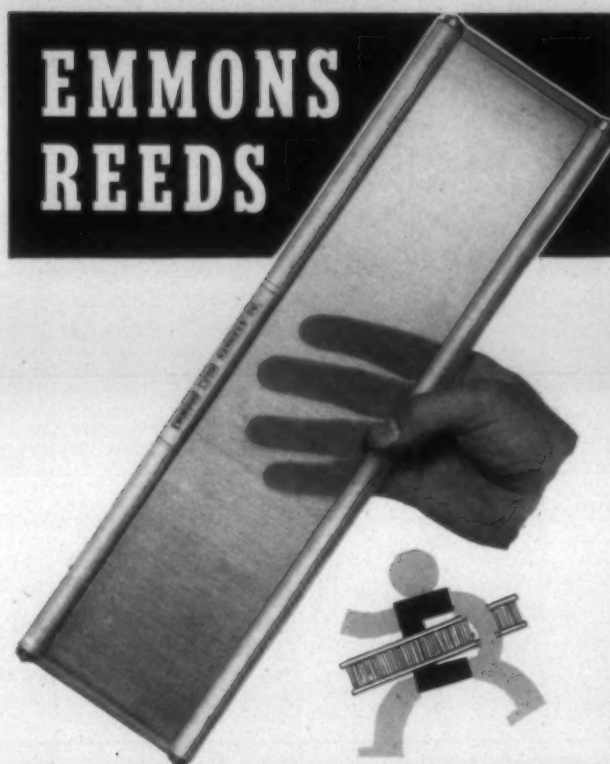
Price Administrator Chester Bowles recently gave public recognition to members of OPA industry advisory committees who have for two years or more performed outstanding service in "helping the economy withstand the strains of global war." His statement followed presentation of individual certificates of award to the members of the agency's steel castings industry advisory committee at a regular meeting of the committee in Chicago Feb. 13. Similar awards went to the members of the iron and steel scrap industry advisory committee in January. Other awards will be made, Administrator Bowles said, when committees that have been in operation for as long as two years are cited by OPA officials as deserving of special notice.

Import of Argentine Wool Held Down

The War Production Board recently announced its policy governing applications for the importation of wool from Argentina during the second quarter of 1945. In general, authorizations will be limited to about ten per cent of the average imports of Argentine wools during the periods from Oct. 1, 1941, to Sept. 30, 1942, and from July 1, 1943, to June 30, 1944, WPB said.

Authorizations will be limited to qualities of 44's and finer. Because of heavy military requirements for medium wools, it is hoped that purchases will be concentrated in the qualities from 50's to 60's in suitable condition for immediate use in military programs, officials of WPB's wool branch said.

A copper dummy designed to duplicate exactly the human temperature system was shown for the first time recently by General Electric Co. at the National Retail Dry Goods Association exhibition in New York.



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atinous materials . . . is safe for the most delicate fabrics. Used in dyeing, it makes the fabrics wet out and sink quickly.

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Terminated War Contracts Regulation Issued

The Office of Contract Settlement has moved to facilitate interim financing for holders of terminated war contracts by issuing Regulation 13, dealing with the suspension or modification of the penalty for over-stating claims in connection with interim financing. The new regulation delegates the authority to modify or suspend the penalty to the heads of the contracting agencies, and describes circumstances under which the penalty may be waived.

Based on the premise that the penalty for over-statement should be suspended unless there is bad faith on the contractor's part, or unless he secures an over-payment, the regulation, referring to partial payment applications, states: "The penalty would be inequitable and should be reduced if greater than six per cent of the amount by which the total partial payments made to the war contractor on account of his own termination claim exceed the amount of the final settlement of that claim."

To prepare war contractors for handling contract settlement, a new Contract Settlement Training Guide has been published by the contract settlement advisory board's committee on training. This booklet is designed to provide basic information for termination co-ordination committees, which have charge of local contractor training programs.

New Plant To Produce Nylon Ingredients

Plans for construction of a new plant near Orange, Tex., to boost nylon production for military purposes at the specific request of the government, have been announced by E. I. du Pont de Nemours & Co. Work on the project, estimated to cost approximately \$20,000,000, is to start immediately. The plant, on a tract of about 1,000 acres adjacent to the Sabine River in southeast Texas, will be about three miles south of Orange.

The Du Pont Co. says it plans that Texas production of the ingredients of nylon, manufactured by an intricate chemical process, will begin in 12 months. The nylon salt is made into flake and yarn at Seaford, Del., and Martinsville, Va., where facilities will be rounded out to handle the increased production. All nylon is under government allocation for military purposes, principally parachutes, airplane tire cord, flak protective devices, glider tow rope, ponchos, mildew-resistant equipment, tapered bristles for Navy paint brushes, wire insulation and molded parts for airplane instruments. The Texas plant is to be designated as the Sabine River Works.

New, war-developed rust preventives and their application for reduction of rust losses in industry are discussed in *The Service Factor* issued this month by Sinclair Refining Co. The presentation gives information about the proper type of rust preventive and method of application for protection of external surfaces of machinery, internal surfaces, bearings and other moving parts, engines and automotive vehicles. The treatment covers idle machinery and equipment in storage and in transit.

Preliminary treatment necessary before application of rust preventives is outlined. A useful chart identifies the various rust preventives with government specification number preventives. Copies may be obtained without charge upon request to *The Service Factor*, Sinclair Refining Co., 630 Fifth Ave., New York 20, N. Y.

Technologists Discuss Post-War Aims of Cotton Growers

A broad Allied strategy for holding the cotton crop's world-wide economic front against increasing pressure from competing fibers was advanced when two cotton technologists, one Indian and the other American, were interviewed jointly at New Orleans, La., recently. Dr. Namir Ahmad, director of the Cotton Technological Laboratories and member of the Imperial Council of Agricultural Research, with headquarters in Bombay, expressed the Indian viewpoint, while Earl E. Berkley, cotton technologist of the U. S. Development of Agriculture, discussed America's future in cotton trade.

Dr. Ahmad predicted greater cotton production in India "by increased use of fertilizer—large quantities of which we shall buy from America—and by employing modern methods of farming." However, both he and Mr. Berkley expressed the belief that Indian cotton "will compete far less with the American crop because of a proposed 15-year Indian reconstruction program which calls for greater home consumption of Indian products." Dr. Ahmad added that: "This 15-year program, estimated to cost \$3,000,000,000, promises to be a boon to American commerce, industry and agriculture."

"Also," the Indian technologist said, "improvement of the lot of our farmers, one of the program's objectives, will eliminate a contributing factor in cheap competition for world cotton markets. I am here to see how you people increased farm production and improved the standard of living for farm people. We in India realize we soon shall have to send large numbers of our people to be trained in agriculture in American universities."

Mr. Berkley outlined a program for processing and merchandising improvements which he said he believed would strengthen cotton's position in competition with other fibers and in "friendlier" competition with India, South America and South Africa. "Packaging is important," he said. "We must assure the processor he is going to get a standard cotton irrespective of how many bales he buys. The small cotton farmer is here to stay, but he is going to have to concentrate on long staple cotton."

The American predicted a trend toward "co-operative farming for the small farmer with the ginner supplying the tools and the small farmer planting in a manner in which he can employ mechanical equipment. Better varieties, better soil, mechanization, standardization, and fertilization is our answer to meeting the world fiber competition in the post-war period."

The International Cotton Advisory Committee will hold its fourth meeting in Washington March 26. It is expected that upward of 50 delegates will attend from the following countries, in addition to the United States: Brazil, Egypt, India, Peru, Mexico, Turkey, the Anglo-Egyptian Sudan, the Union of Soviet Socialist Republics and the British and French cotton exporting colonies.

A series of articles which were written for *Steel* by G. M. Chute, application engineer for General Electric Co., Detroit, Mich., has been incorporated into booklet form by the General Electric Co., and a copy may be secured upon request. The booklet is entitled "Fundamentals of Industrial Electronics" and contains many illustrations in addition to the articles.

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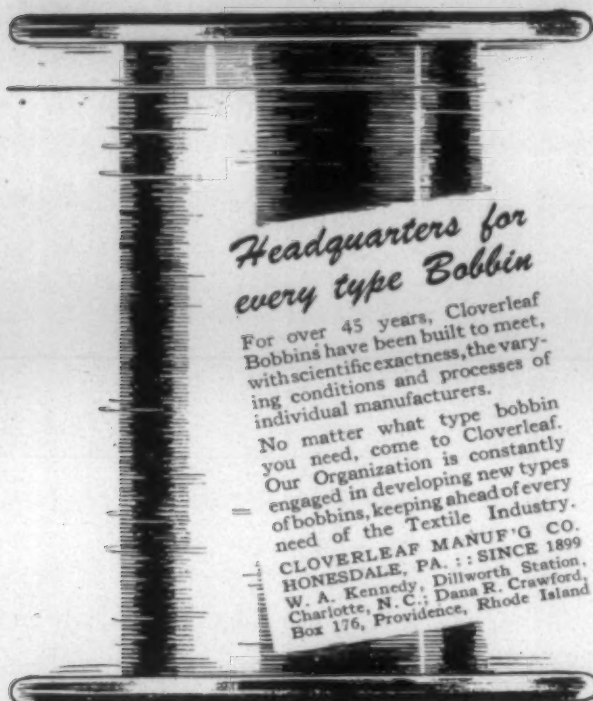
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DuPont Has Biggest Year Since Founding

The largest production volume of any year in its history and the lowest operating income after taxes of any year since 1938 except one were disclosed in the 1944 annual report of E. I. du Pont de Nemours & Co., distributed this month to 87,138 stockholders. Overall operating activity for the year reached \$962,217,000, a three per cent gain over the previous year. Income from operations after taxes declined eight per cent to \$43,343,491. Net income from all sources, including operations, fees and return from investments was \$80,870,106 after taxes.

Rayon production during 1944 reached an all-time high of 158,000,000 pounds, an increase of 16 per cent over 1943 and 77 per cent over 1939. Production of high tenacity rayon yarn now used in aircraft and heavy-duty truck tires is at a rate of 60,000,000 pounds a year, or three and a half times the 1942 output, the company said. Approximately 55,000 long tons of neoprene synthetic rubber were manufactured and capacities are now being enlarged to permit an increase to 70,000 long tons a year. Production of nylon yarn and other nylon products increased substantially, with all material remaining under allocation. War production was also reported for each of the company's basic chemicals, including synthetic ammonia, finishes, heavy chemicals, dyes and other organic chemicals.

Hercules Booklet Lists Chemical Products

A pocket-size booklet containing the list of chemicals made and sold by the Hercules Powder Co. cellulose products department, types available, their end uses, and pertinent packing and shipping information is now available from that department. Titled "Chemicals for Industry," the booklet is designed as a useful aid to technical and non-technical persons interested in the use of these products for the flameproofing, waterproofing and weatherproofing of textiles.

The chemicals listed include nitrocellulose, cellulose acetate and ethyl cellulose—bases for the largest thermoplastic family in industry; Parlon, Hercules chlorinated rubber; Clorafin, Hercules chlorinated paraffin, and CMC (sodium carboxymethylcellulose). The packing and shipping information lists the physical form of each chemical as shipped, type of freight package, approximate weight of package, minimum carload, and shipping point.

American Viscose Sets Up Scholarship

A competitive scholarship award of \$1,200, the winner receiving \$300 for each session of his four-year course of study, has been established at Roanoke College, Roanoke, Va., by American Viscose Corp. Commenting on the scholarship, Dr. Charles J. Smith, Roanoke College president, said: "While the company intends to inaugurate this award with the class entering next September, it has at the same time made available a scholarship of \$300 for the present session of 1944-45 to men students already enrolled."

"The winner of this year's \$300 award will be picked this month by a committee composed of members of the college faculty and the corporation, while the larger four-year scholarship will be awarded about June 1 to applicants for the freshman class entering in September. Holders of these scholarships will be offered employment with the American Viscose Corp. Roanoke plant at the end of their college

course in such fields as their training warrants. They will be under no obligation, however, to accept employment with the company if their desires should lead them in another direction."

Figures Given On Output of Finished Rayons and Cottons

Detailed statistics on the yardage of finished cotton and rayon woven goods going into priority rated orders, and a breakdown of the end uses of these fabrics are incorporated for the first time in the "Facts for Industry" series 32-6-2, which covers the production of these fabrics for the third quarter of 1944. The figures were compiled by the Department of Commerce, Bureau of Census, from statistics gathered by the textile, clothing and leather bureau of the War Production Board.

The fabrics for July-September, 1944, represent practically all the yardage finished, and indicate the yardage finished under priority ratings of AA-2X or higher. These ratings apply primarily to fabrics intended for direct or indirect delivery to the armed services, but also apply to some highly essential industrial and civilian fabrics. The statistics also show for the first time the end uses of the yardage finished against priority ratings AA-3 to A-10, as well as of all non-rated yardage.

The production of bleached, dyed or printed cottons and rayons in the third quarter of 1944 based on a tabulation of the totals in each of the three categories amounted to 1,947,030,000 linear yards this compares with 2,142,795,000 linear yards in the second quarter of last year, and 2,185,194,000 linear yards of cottons and rayons finished in the first quarter of 1944.

Total production of bleached and white finished goods during the third quarter of 1944 amounted to 789,612,000 linear yards, of which 335,417,000 linear yards or 42.5 per cent went on rated orders of AAA to AA-2X; and 454,195,000 linear yards or 57.5 per cent went on other rated and unrated orders. The total compares with 860,664,000 linear yards finished in this category during April-June, 1944, and 885,160,000 linear yards in the first quarter of 1944.

Plain dyed and finished cotton and rayon fabrics produced in the third quarter of 1944 totaled 817,149,000 linear yards, of which 319,553,000 linear yards or 39.1 per cent were on ratings of AA-2X or higher and 497,616,000 yards or 69.0 per cent on lower rated or unrated orders. The total production of plain dyed and finished cotton and rayon fabrics in the second quarter of last year was 884,682,000 linear yards, and in the first quarter amounted to 882,286,000 linear yards.

Printed and finished cotton and rayon woven goods turned out in the July-September quarter of 1944 were 340,269,000 linear yards, of which 10,038,000 linear yards or 3.0 per cent were ratings of AA-2X or higher, and 330,231,000 linear yards or 97.0 per cent on other ratings or unrated orders. The total figures compare with 397,449,000 linear yards in the April-June quarter of 1944 and 417,748,000 linear yards the first quarter of last year.

Rationing of clothing has begun in India. An announcement from Bombay states that consumers will henceforth receive an allotment of two "dhoties" semi-annually. This garment is a loin cloth of the type worn by Mohandas K. Ghandhi.

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OBITUARY

John Franklin Schenck, 79, pioneer Southern textile industrialist, died at his home in Lawndale, N. C., March 4 after an illness of two weeks. He was president of the Cleveland Mill & Power Co., the Lily Mills, the Lawndale Railway & Industrial Co., vice-president of the First National Bank at Shelby, N. C., and owner of the Lawndale Telephone Co. The great-grandson of Michael Schenck, who founded the first cotton mill in North Carolina 155 years ago, Mr. Schenck developed several inventions utilized by the textile industry. He is survived by his second wife and three sons.

John Onslow Rankin, Sr., 83, retired textile and business man of Gastonia, N. C., died at his home there March 5 after having been ill several months. He was one of the organizers of the Dallas (N. C.) Cotton Mfg. Co., first cotton mill in Dallas, and served for some time as secretary-treasurer of that organization. Later he was bookkeeper and storekeeper for the McAden Mills at McAdenville, N. C. After moving to Gastonia in 1903, he was interested in a wholesale grocery business. He is survived by three sons and two daughters.

Lieut. David Bradt Bartlett, who was associated with the Aberfoyle Mfg. Co. at Belmont, N. C., before he entered service, died in action in the Philippines Sept. 7, 1944, according to information from the War Department. A native of Belmont, Mass., he is survived by his parents, a sister and a brother, all of West Somerville, Mass.

Frank Bullard Kenney, 79, one of the country's pioneer producers of high-speed textile machinery, died Feb. 25 at his home in Lowell, Mass., after a brief illness. He was president of T. C. Entwistle Co., manufacturers of textile machinery, for over 40 years, until his retirement Jan. 1, 1944. He was well known in the textile industry throughout the world, having had connections in India, Egypt, pre-war Germany, China and Great Britain through his invention of the high-speed cotton warper, and later through his high-speed rayon warper.

J. D. Williams, 50, former secretary and treasurer for the Vardry Mills in Greenville, S. C., and more recently owner and operator of the Textile Warehouse Co. in Greenville, died suddenly March 1 after an illness of only five hours. He is survived by his wife, two sons, two brothers and one sister.

Lloyd G. Hooper, 66, for the past several years a salesman for the Gastonia (N. C.) Mill Supply Co., died suddenly of a heart attack March 10. He was for six years superintendent of the Jewel Cotton Mills at Thomasville, N. C., superintendent of the Johnston Mfg. Co. at Charlotte, N. C., for a similar length of time, and superintendent of the Wymogo Mills at Rock Hill, S. C., for seven years. He is survived by his wife, four daughters and two sons.

New Shipping System Finding Wide Usage

In collaboration with the Army Quartermaster Corps, the National Adhesives Division of National Starch Products, Inc., has developed a special quick-setting, mold-proof glue for palletizing corrugated or solid fiber shipping containers which has been approved by the Army Service Forces and the Navy Department's Bureau of Supplies and Accounts. The approved glue is identified as National's Pallet Adhesive No. 4 and is designed to provide high sheer strength, which prevents the side-slipping of units comprising the load—in combination with low tensile strength, which permits the easy separation of cases for distribution at advance bases. Application is made by brush to the perimeter of the wooden pallet face (Fig. 1) and in an L-shaped pattern to the upper four corners of each container in contact with another layer (Fig. 2). A special gluing system for palletizing wooden boxes has

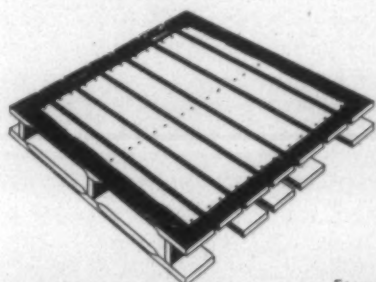


Figure 1

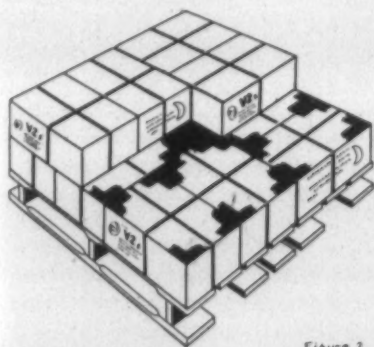


Figure 2

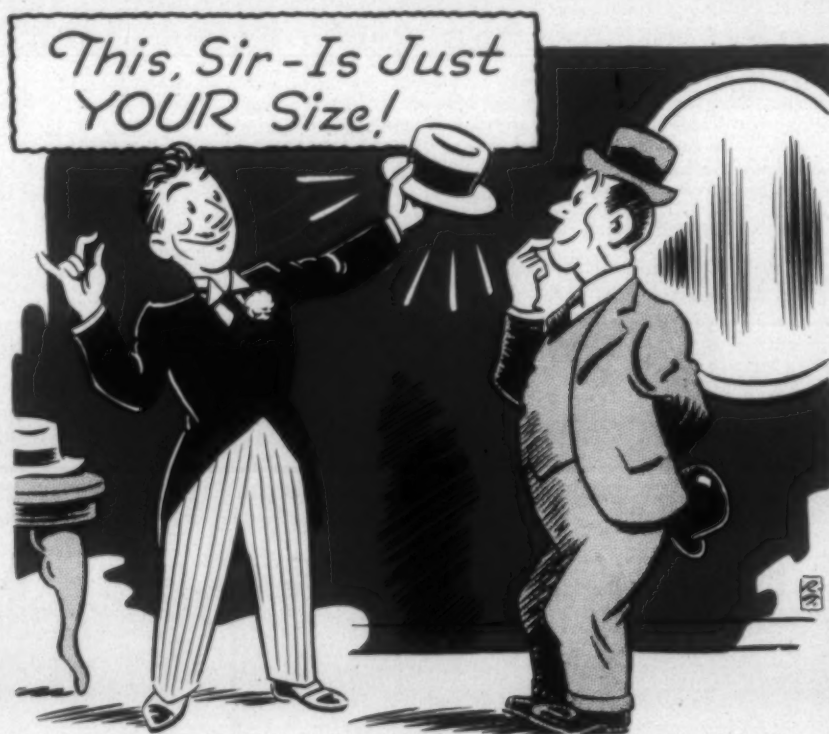
also been worked out by National Adhesives and is now under rigid test by the services.

Of prime importance, the gluing of pallet loads is said to extend the practical application of palletizing to a far greater number of shippers. It permits those without mechanical handling equipment to quickly assemble unit loads in freight cars and forward safely to any point in the United States with adequate protection against all the stresses of domestic shipping and

freight handling. In addition, palletizing with glue is said to reduce losses of war material due to pilferage and, by preventing the slippage of inadequately anchored items, eliminates the need for reassembling broken loads.

The National Fire Protection Association, with headquarters in Boston, Mass., has announced that the revised 1945 edition of National Fire Codes for Flammable Liquids, Gases, Chemicals and Explosives is now ready for distribution.

For the convenience of the reader the volume is divided into nine parts as follows: flammable liquid storage and handling; oil and gasoline burning equipment; liquified petroleum gases; utilization of flammable liquids; gases; refrigeration and fumigation; explosive and nitrocellulose materials; tables of properties—hazardous chemicals, flammable liquids; flash point tests. Price of the book is \$3.00 postpaid, and it may be secured from National Fire Protection Association, 60 Battery-march St., Boston, Mass.



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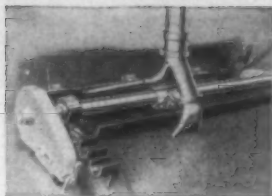
You buy a good sizing compound, and you get a bonus of useful service in the form of a Houghton Size Check-up Test, run by a Houghton Man who grew up in a cotton mill. That feature, with the merits listed above, should cause you to sit down today and write Houghton for more details.

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Speaking At Technical Meetings

(Continued from Page 20) — presents three comparisons. As the slides are presented, adequate time should be allowed for their study, particularly as the slide is first flashed, to allow the observers to orient themselves and again just before the slide is changed, to allow them to review the significant points. This time should be filled in by what may be termed diluted discussion; that is, verbal presentation which does not require close listening. The speaker should not confuse the listeners by reading for them the complete text of the slide. Give them an opportunity to absorb it visually and merely call attention to the high points involved.

If a public address system is used he should familiarize himself with the proper distance between his mouth and the microphone and assure himself that this distance can be maintained from the reading stand and during any necessity he may have for explaining slides. As a rule it is a good idea to try to project the unamplified voice to the back of the room. This means that the public address system will be turned way down but it permits greater confidence.

If a hand pointer is used, a lapel microphone is almost necessary and he will have to go through his slide explanation without constant reference to his paper. A better solution is a flashlight which will project an arrow or a spot of light on the slide, thus making it unnecessary for him to leave either the paper or the microphone. If a blackboard is used a check should be made with available chalk. Some chalks do not write on poor boards. A blackboard should not be used with a large group.

If the chairman of the meeting or the man who is to introduce the speaker appears to ask impertinent questions, he is not necessarily rude. It is his function, in presenting the speaker, to assist the audience in orienting themselves to the individual they are about to hear. As a matter of fact, it is a good idea for the speaker to assist the chairman by giving him a brief, typed paragraph describing his general background or who he is, the general subject of the paper, why he should be selected to talk on this subject and why the subject is of interest to the particular group assembled at the meeting.

The custom of starting a talk with a story or with informal extemporaneous remarks has not been arrived at through accident. This introduction fills a very valuable function. It allows the audience to get used to the appearance of the speaker, the way he parts his hair, and the way he wears his clothes. It also allows them to tune in on the pitch, volume, and timber of his voice. It allows the audience to shift their positions to one which allows close attention or to relax into postures which induce rest and relaxation. On the other hand, it allows the speaker a chance to adjust his voice so that he is sure it is heard in all parts of the room, to review his position in reference to the microphone, to get his papers arranged in the best light, to lay out his watch so that he can keep track of the passage of time and to size up what sort of reception the audience is going to give him. This is the final "tuning in" of audience and speaker.

Any meeting open to the public may be attended by representatives of the press. There is a good chance that the press will look for something to publish. Much better control of such a publication is maintained if the chairman is provided with several copies of an abstract of the talk.

In discussing the advantages of talking to a group rather than writing a report, it has been pointed out that details

can be provided for study by the more interested listeners through supplementary comments in written form. These may be made available at the meeting through mimeographed copies of the complete paper for general distribution. If the complete paper is to be published later the mimeographed copies may not be necessary. In this case reference can be made to the time and place where the material will be available.

All this checking requires that the speaker be present well in advance of the meeting, that he present himself to the individual in charge of the meeting and have provided to him in advance a list of his requirements. While some may consider that all of this checking should be done by the chairman of the meeting, this is neither wholly true nor is it safe for the speaker. Only the speaker himself knows exactly what his requirements will be and it is the speaker who receives the major embarrassment when things go wrong. The speaker who comes to the meeting after it is already underway, leaves the chairman in doubt as to whether or not he is actually present, is found present only when his name is called, and then is usually well buried in the audience so that he has to climb over eight or ten men to reach the aisle and then parades the length of the hall, must have extremely valuable information to impart and an ability to impart it most cleverly and interestingly to still retain his popularity.

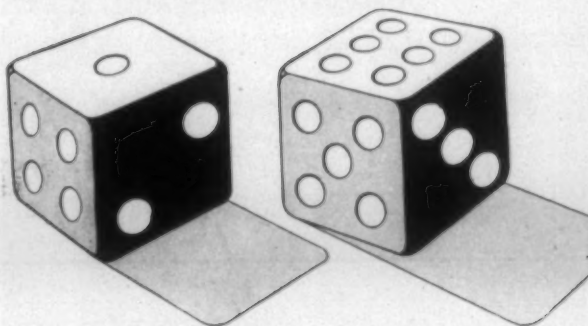
Much of the above may seem to be elemental. None of it takes any great thought. On the other hand, anyone who attends technical meetings is well aware that some of these meetings have involved annoyances, embarrassment, and lost opportunities that observation of these simple rules would have eliminated.

Better Quality Finished Goods Through Informative Test Reports

(Continued from Page 22)—well as intensive study by of naphthols being marketed as well as intensive study by chemists and dyers on application of the colors under strict chemical control. Crocking in better quality naphthol dyed yarns and fabrics comes in for a good many complaints. It occurs in varying degrees because minute particles of naphtholate remain precipitated, cling to the outside surface and then couple with the fast color base solution. This developed surface shade causes a slight stain on adjacent white cloth when hot washed. Special dyeing and finishing procedures have reduced this complaint. Rigid specifications may demand that pot holders, bath mats, etc., processed with vat and naphthol dyed yarns must stand a bathing soap solution for a certain period without staining the white goods. All experienced vat dyers know that only a limited number of vat colors would meet such rigid specifications; they claim that it is not exactly fair to eliminate dyed shades which can be produced economically by naphthols or other types of dyestuffs and offer excellent fastness on all but one desired requirement, and on that even be rated very good for practical work.

In the re-evaluation of many of these specifications it is the general opinion that a thorough study of various classes of dyed and finished fabrics and yarns is necessary before a fastness specification is set up. Consideration must be given to the different dyestuffs and procedures used in trying to meet the specifications. Numerous plant officials hope that future specifications will be sufficiently elastic to encourage rather than hinder progress.

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Industrial Rayon Reports 1944 Earnings

Industrial Rayon Corp. this month reported net earnings, after provision for Federal income and excess profits taxes and payment of preferred dividends, of \$1,403,287 for the year 1944. This is equivalent to \$1.85 per share of common stock, and compares with net earnings of \$1,642,083 for 1943, which equalled \$2.16 per share. Net sales totalled \$22,432,561 and reflected initial production by the company's expanded facilities.

Hiram S. Rivitz, president, in his letter to stockholders pointed out that 1944 earnings were reduced by a special charge to operations aggregating \$1,019,702 in connection with alterations, re-arrangements and abandonments incidental to the expansion of the Cleveland and Painesville, Ohio, plants. Estimated total cost of these projects, including \$1,056,022 charged to operations in 1943 and 1944, was stated at \$19,150,000. Wartime conditions resulted in a delay of approximately six months in completion of the extensions at Cleveland and Painesville, he reported, stating that the net result of the expansion was an increase of approximately ten per cent in production and volume of business in 1944 as against 1943.

Bulletin Describes Textile Thread Guides

Bulletin 444, recently published by the American Lava Corp., Chattanooga, Tenn., describes and contains photos of AISiMag 192 custom-made thread guides which are said by the manufacturer to resist the cutting action of such notoriously abrasive fibers as rayon, nylon, linen, glass fiber and jute. Polished instead of glazed, this homogeneous ceramic material is depicted as uniform throughout and with no point of sudden failure since continued thread action merely exposes new surfaces equally hard and smooth. Also listed in the bulletin are funnel tips and constrictions for rayon spinning machinery, tension sleeves, eyelets and rings, winder guides, coner buttons and shuttle pins.

Deering Milliken Has 80th Anniversary

Deering Milliken & Co., large mill selling house which handles cottons, rayons and wools, observed its 80th anniversary recently by playing host to over 3,000 representatives from the textile-apparel and related industries in the headquarters of the organization at 240 Church St., New York City. Bouquets, wreaths, plants and floral decorations of all kinds from well-wishers gave the premises the atmosphere of a flower show. Executives and personnel from the main quarters and offices, including President Gerrish Milliken, were on hand to greet the large turnout of visitors and acknowledge the congratulations.

War Contract Termination Publication Offered

Despite the fact that the Joint Army-Navy Termination Regulation has been designated as the "Bible" for war contractors to use in the rapid settlement of war contracts, a recent survey disclosed that less than 40 per cent of the war contractors queried had availed themselves of this publication. Any person holding war contracts can be placed on the mailing list for the regulation and other printed material pertaining to contract settlement by writing to Lieut. E. P. Hull, Joint Army-Navy Distribution Center, 90 Church St., New York, N. Y. There is no charge for this service.

Fiber and Spinning Research Sponsored At Texas Tech

National recognition of the work in textile engineering at Texas Technological College, Lubbock, is reflected in a co-operative cotton fiber and spinning research project with the Chicopee Mfg. Co. of Chicopee Falls, Mass., which began March 1. The agreement provides for the use of the physical facilities of the college with the research staff and cost of operations furnished by the Chicopee Mfg. Co. Results of the study will be published periodically and made available to the cotton industry and the public.

The goal of the undertaking is to determine, through cotton fibers and spinning investigations, a method for scientifically determining cotton spinning quality, with a view of employing such methods as supplementary to grade and staple for guidance in selecting cottons for specific uses. "It has been demonstrated in various government and private laboratories that grade and staple alone do not always adequately indicate final spinning quality and that a knowledge of fiber characteristics and cotton varieties furnish the third dimension of quality," says George W. Pfeifferberger, cotton research supervisor of the Chicopee company, who will be in charge of the research project at Tech. He was director of the fiber and spinning research laboratory of the U. S. Department of Agriculture at Texas A. & M. College for several years.

Texas Technological College was selected for the present project, he says, because it is one of the most thoroughly and modernly equipped schools for cotton research. The Texas cotton research committee has been highly instrumental in helping equip the Tech textile department for cotton research. Texas Technological College, he says, can be of substantial assistance to the cotton industry and to the cotton farmer by this co-operation in helping to place cotton purchasing on a basis of actual spinning value. The cotton producer will also benefit by learning what varieties and qualities of cotton will be most desirable to the spinner.

A greater interest in Texas cottons may result from the program, it is pointed out, and the location of this extensive research project in the Southwest may be taken as indicating a trend in the interest of the textile industry toward the cotton producing country and its problems. A wide range of cotton, representing various grades and varieties, will be tested. This project means not only a recognition of the college by industry, but that Texas Technological College recognizes the importance of a policy of co-operation with industry in making its facilities available for research work. Tech students will be able to observe first-hand the nature of this type of industrial research carried on by a personnel of wide experience. The staff will consist of six or seven persons to begin with. The regular fiber and manufacturing courses in the department of textile engineering will be supplemented at times by guest lectures given by Mr. Pfeifferberger.

President William M. Whyburn is enthusiastic about the venture. He says: "This co-operative arrangement on important industrial research programs is a source of great satisfaction to me. In giving his hearty approval to the agreement, the board of directors expressed the opinion that one of the major services originally conceived for the college is being rendered. Through such projects as this, new and better uses for cotton should be developed at the same time that our students are receiving the best training possible in



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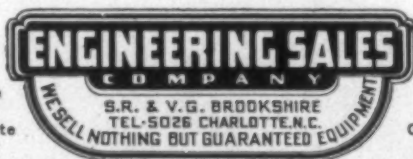
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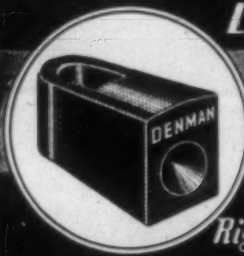
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the technical processing of cotton, the state's principal raw material. The policy of this institution is one of ready co-operation in the development of the various resources of the great State of Texas."

The textile building and equipment at Tech is valued at approximately a quarter million dollars. It is pointed out by L. E. Parsons, acting head of the department of textile engineering, that the college will benefit materially during the study because of the continuous operation of its textile machinery and equipment. It should, he says, interest students in textile engineering and also furnish trained men and women for the textile industry. A number of cash scholarships are now available for capable high school graduates, men and women, who desire to train in textile engineering at Tech.

The Chicopee Mfg. Co. by the agreement is modernizing the Tech spinning equipment to long draft at a considerable expense, and is making a gift of this equipment to the college. This will give Texas Tech the very latest in spinning machinery. The company, regarded as one of the best known and, most progressive cotton manufacturers in the country, also operates plants at Manchester, N. H., and Gainesville, Ga. Chief product of the company is gauze and bandages, nearly 100 per cent of which is being furnished to the armed forces.

A case in which paratroopers may carry an M-1 rifle or any type of carbine or sub-machine gun has been developed by the Army Quartermaster Corps, the War Department has announced. The new case will replace the existing Army Air Forces container which, however, will continue to be issued until the supply is exhausted, and will render obsolete the former scabbard for the .30 caliber carbine.

West Coast Textile Industry Expanding

Further expansion of the textile industry on the West Coast is indicated by two recent announcements of the Los Angeles, Calif., Chamber of Commerce regarding new industries in that city. The United Piece Dye Works of Lodi,

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N. J., one of the oldest and largest textile finishing companies in the country, has purchased a factory building in Los Angeles and is installing modern machinery for dyeing and finishing synthetic and mixed fabrics. This is the first large scale venture of this kind to be located in the West.

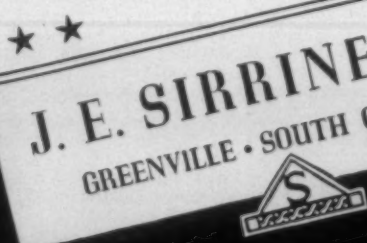
A rayon piece-goods weaving plant has been established in the former Golden State Mills building at Hermosa Beach by Schwarzenbach Huber Co., well known silk manufacturing firm which has plants in New Jersey, Pennsylvania and Virginia. The opening of the plant at Hermosa Beach was viewed by the Los Angeles Chamber of Commerce as possibly the first step in establishment of a rayon industry on the West Coast.

Permission To Pay Above Ceiling Prices Given To Army

Permission will be granted the War Department to pay prices above existing OPA ceilings for textiles and apparel manufactured to military specifications and sold under negotiated contracts, provided specified price limits are not exceeded, the Office of Price Administration announced this month. In general, the standards to be observed in allowing any increase are the same as would be followed by OPA if individual adjustment applications were made by the sellers to the price agency.

This action, effective March 14, 1945, will assist the Army in obtaining needed textile and apparel supplies in emergency situations where the existing ceiling prices constitute an impediment to production and considerable time would be lost in having the sellers make individual applications to OPA for ceiling price adjustments. Such items as uniforms, tentage, camouflage nets, protective clothing, etc., are affected.

In these cases the War Department may make the individual adjustment directly with the seller. This can be done without the formality of written applications by the seller to either OPA or the department, and thus valuable time can be saved. However, before any such adjustment becomes effective the director of the purchases division, Army Service Forces, must certify to OPA that the limiting conditions have been followed and an exemption order must be issued by OPA. Criteria which the War Department will follow in making any price adjustments have been clearly set forth in an exchange of letters between the department and OPA. The letters also specify the details that must be filed with OPA by the War Department in every case where prices are adjusted above ceiling prices.



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ACME MACHINE & TOOL CO., 2516 Wilkinson Blvd., Charlotte, N. C.

ACME STEEL CO., 2838 Archer Ave., Chicago, Ill. Sou. Office and Warehouse, 603 Stewart Ave., S.W., Atlanta, Ga. F. H. Webb, Dist. Mgr. Sou. Sales Reps.: C. A. Carrell, 523 Clairmont Ave., Decatur, Ga.; Phone Dearborn 6267; Marcus M. Brown, 1231 Lexington Ave. (Phone 8583), Charlotte, N. C.; William G. Polley, 937 Cherokee Lane, Signal Mountain, Tenn.; Phone Chattanooga 8-2635; John C. Brill, 309 Magazine St., New Orleans, La.; Phone Magnolia 5859. Warehouses at Atlanta, Ga.; Greenville, S. C.; New Orleans, La.

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ARNOLD, HOFFMAN & CO., INC., Providence, R. I. Sou. Headquarters, 2130 N. Tryon St., Charlotte, N. C., Mgr., Walter T. Bunce, Phone 2-4073; Technical Service men: Reid Tull, 116 W. Thomas St., Salisbury, N. C., Phone 1497-J; Philip L. Lavoie, 2130 N. Tryon St., Charlotte, N. C.; John H. Graham, P. O. Box 904, Greenville, S. C., Phone 2322; John R. Brown, P. O. Box 749, Trussville, Ala., Phone 127; Warehouse, 2130 N. Tryon St., Charlotte, N. C.

ASHWORTH BROS., INC., Charlotte, N. C. Sou. Offices, 44-A Norwood Place, Greenville, S. C.; 215 Central Ave., S.W., Atlanta, Ga.; Texas Rep.: Textile Supply Co., Dallas, Tex.

ATWOOD MACHINE CO., Stonington, Conn. Sou. Rep.: Fred Seifs, Johnston Bldg., Charlotte, N. C.

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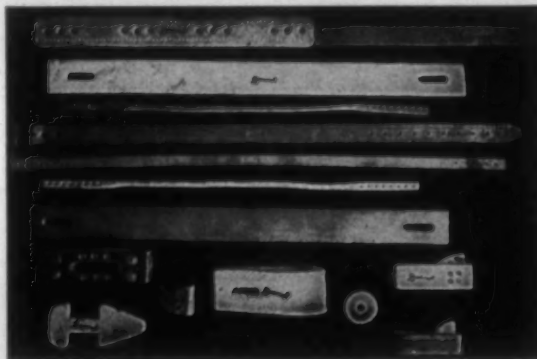


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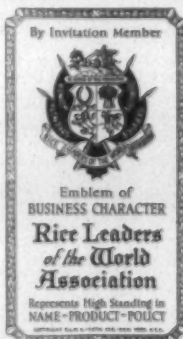
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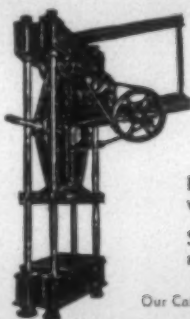
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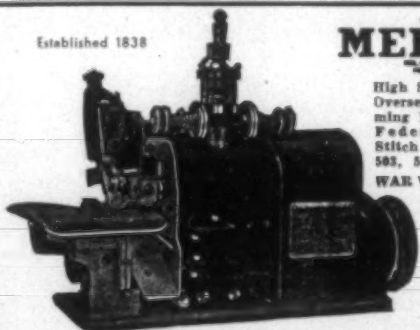
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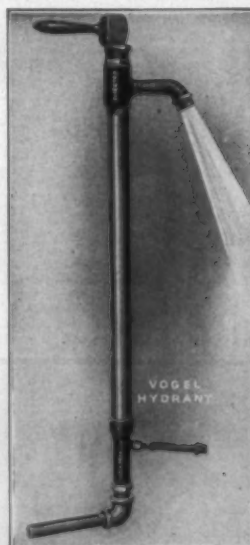
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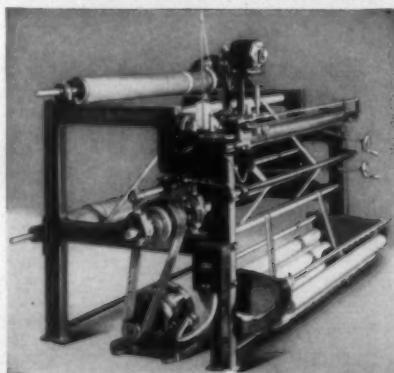
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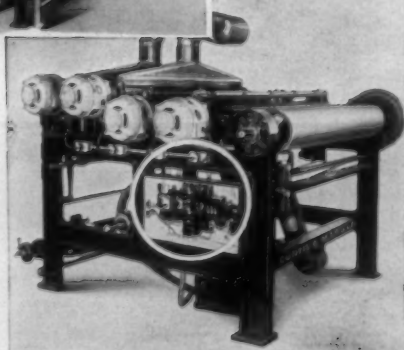
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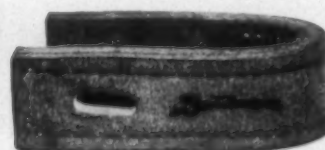
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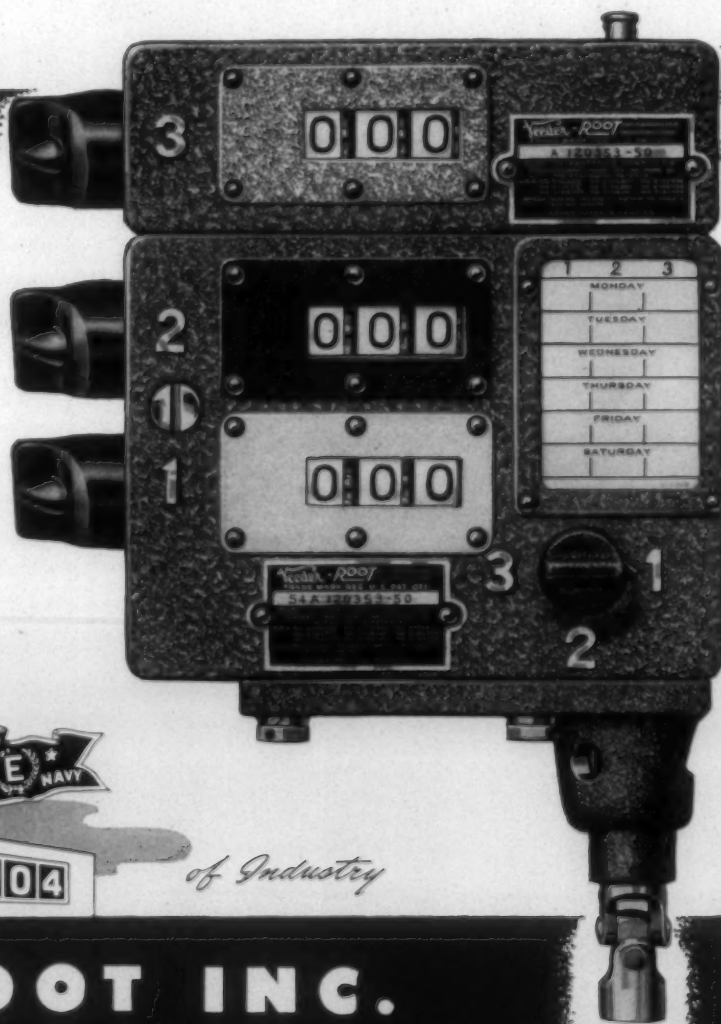
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